



# CENTENARY REVIEW

OF THE

# ASIATIC SOCIETY OF BENGAL

From 1784 to 1883.

---

*Published by the Society.*

CALCUTTA  
PRINTED BY THACKER, SPINK AND CO

---

1885



# CONTENTS

---

PART I—HISTORY OF THE SOCIETY

. BY DR. RAJENDRALALA MITRA.  
.

PART II—ARCHÆOLOGY, HISTORY, LITERATURE, &c.

BY DR. A. F. R. HOERNLE.

PART III—NATURAL SCIENCE, &c.

BY BABOO P. N. BOSE.

---

PROCEEDINGS OF THE SPECIAL CENTENARY MEETING OF THE SOCIETY





CENTENARY REVIEW  
OF THE  
ASIATIC SOCIETY OF BENGAL  
*From 1784 to 1883.*

---

PART I.  
HISTORY OF THE SOCIETY

BY  
RAJENDRALALA MITRA, LL D, CIE

---

Published by the Society.



# CONTENTS

	PAGE		PAGE
Asiatic Researches	47	Museum	31
Peardrell	71	Name	3
Bibliotheca Indica	61	Object	4
Books European	22	Oriental MSS	24
Busts	30	Patrons	11
Coins	29	Pictures	30
Committees, Special	15	Presidents	12
Council	15	———, List of	84
Lands	71	Proceedings	53
House	20	Publications	47
Inscription	28	———, List of	95
Introduction	1	———, Miscellaneous	70
Journal	51	———, Oriental	55
Library	22	Rules	5
——— Summary of the	27	Sanskrit MSS, Conservation of	66
Meetings	17	Secretary	14
Members Associate	11	Secretaries, List of	84
———, Corresponding	11	Society, Foundation of the	2
———, Foundation	3	Summary	80
———, Honorary	10	Treasurer	14
———, Ordinary,	7	Vice-President	13
———, Table of	83	Vice-Presidents, List of	84



# Centenary Review

OF THE

ASIATIC SOCIETY OF BENGAL.

*From 1784 to 1883*



Part II.

## HISTORY OF THE SOCIETY.

Introduction — Foundation of the Society — Foundation Members — Name — Object — Rules — Ordinary Members — Honorary Members — Associate Members — Corresponding Members — Patrons — President — Vice-President — Secretary — Treasurer — Council — Special Committees — Meetings — House — Library — European books — Oriental Manuscripts — Summary of the Library — Inscriptions — Coins — Pictures and Busts — Museum — Publications — Asiatic Researches — Journal — Proceedings — Oriental Publications — Miscellaneous Publications — Conservation of Sanskrit Manuscripts — Funds — Bead-roll — Summary

A HUNDRED years have elapsed—a century of arduous and unremitting labour, and the time has now arrived for a review of the progress made and of the services rendered to the cause of literature and science by the Asiatic Society of Bengal since its foundation. Such a review will be as useful in showing what has been accomplished, as in suggesting what has to be done in the vast field which remains yet unexplored. It will be to the Society what periodical stock-taking is to mercantile firms. It will also prove a source of profound satisfaction to those who now represent the Society for the eminent success with which they and their predecessors have worked for the advancement of knowledge.

For convenience of treatment, this Review will be divided into three parts—1st. giving a succinct history of the Society; 2nd. a *resumé* of the papers published on science generally; 3rd. a *précis* of all researches into archaeology, history, literature. &c.

The idea of forming the Society was conceived by Sir William Jones, who came out to Calcutta in October 1783 as a Puisne Judge of the late Supreme Court at Fort William in Bengal. A distinguished scholar and linguist who had already acquired considerable familiarity with some of the classics of India and enthusiastically devoted to oriental researches, he soon noticed the want of an organized association in Calcutta as a drawback to progress. He felt, to quote his own language, "that in the fluctuating, imperfect, and limited erudition of life, such enquiries and improvements could only be made by the united efforts of many, who are not easily brought, without some pressing inducement or strong impulse, to converge in a common point." Accordingly, while he engaged himself in the study of the Sanskrit language, which he had till then not acquired, he invited the co-operation of the leading men of the time in Calcutta for the formation of an institution where united action could be taken to promote the study of oriental literature and science and where, by the co-operation of the many, the talents and abstract studies of the few would prove most effectual, and derive the stimulus which emulation, publicity, and a common interest never fail to excite. His exertions were warmly seconded by his friends, and a meeting was held on Thursday, the 15th of January 1784, to come to some definite resolution. Thirty gentlemen attended this meeting, and they represented the *élite* of the European community in Calcutta at the time. The chair

was taken by Sir Robert Chambers, and the proceedings were opened by Sir William Jones, who delivered a learned and very suggestive "Discourse on the Institution of a Society for enquiring into the History, civil and natural, the Antiquities, Arts, Sciences, and Literature of Asia" The address was enthusiastically received, and a resolution was come to establishing the Society under the name of the 'ASIATICK SOCIETY'

The gentlemen who took part at this meeting and <sup>Foundation Mem-</sup>bers became the founders<sup>1</sup> of the Society were then, or subsequently became, the leading officers of the East India Company in this country, and included among them all the principal contributors to the pages of the Society's Transactions

The name adopted for the Society at the inaugural meeting was borne on the records till the close of the fourth decade of this century. In 1829, soon after the establishment of the Asiatic Society of Great Britain and Ireland in London, and the affiliation of the Literary Society of Bombay with that institution, a letter was received from the latter offering to the Calcutta Society the privilege of being affiliated, and in this letter it was for the first time

---

<sup>1</sup> These were Sir Robert Chambers, Kt, Chief Justice Supreme Court, Mr. Justice Hyde, Puisne Judge Supreme Court, Sir William Jones, Kt Puisne Judge Supreme Court, General John Carnac, Lieutenant-Colonel Henry Watson, David Anderson Esq, Henry Vansittart Esq, Charles Croftes Esq, William Chambers, Esq, Richard Johnson Esq, John Shore Esq (afterwards a Baronet and then Lord Teignmouth) Francis Gladwin Esq, Charles Chapman Esq, Nathaniel Middleton Esq Major William Davy Charles Wilkins, Esq (afterwards knighted), Jonathan Duncun Esq, John Bristow, Esq, Thomas Graham Esq, Francis Fowke Esq, Thomas Law, Esq, Captain Jonathan Scott, Francis Balfour Esq, J David Paterson Esq, Ralph Broome Esq, Burrish Crisp Esq, Lieutenant James Anderson, Lieutenant Charles Hamilton, T Reuben Burrow, Esq; and George Hillarow Barlow, Esq (afterwards made a Baronet)



designated as the "Asiatic Society of Bengal;" but the Society did not accept the change.<sup>1</sup> As the parent of all the Asiatic Societies extant,\* it fitly retained its original name of THE Asiatic Society. In March 1832, when Mr. James Prinsep sought the sanction of the Society to use its name for the Journal he was then about to start, the resolution adopted used the words 'Asiatic Society' only (Journal, Vol. I, p. i); but the editor deemed it convenient for his purposes to add a local designation, and the Society took no notice of it. In 1843, when this Journal became the property of the Society, the new name had already become familiar, and it was formally introduced in the Code of Bye-laws published in 1851.

In the terms of the original resolution, the object of the Society was "enquiry into the history and antiquities, arts, sciences, and literature of Asia" Dilating on this definition, Sir William Jones remarked: "You will investigate whatever is rare in the stupendous fabric of nature; will correct the geography of Asia by new observations and discoveries; will trace the annals and even traditions of those nations who, from time to time, have peopled or desolated it; and will bring to light their various forms of Government, with their institutions, civil and religious; you will examine their improvements and methods in arithmetic and geometry—in trigonometry, mensuration, mechanics, optics, astronomy and general physics; their systems of morality, grammar, rhetoric and dialectic; their skill in surgery and medicine, and their advancement, whatever it may be, in anatomy and chemistry. To this you will add researches into their agriculture, manufacture, and trade;

and, whilst you enquire into their music, architecture, painting, and poetry, will not neglect those inferior arts, by which comforts, and even elegances of social life, are supplied or improved." To give emphasis to these details, Sir William Jones added: "It now it be asked, what are the intended objects of our enquiries within these spacious limits we answer, MAN and NATURE; whatever is performed by the one, or produced by the other." These words have since been paraphrased into—"The bounds of its investigations will be the geographical limits of Asia, and within these limits its enquiries will be extended to whatever is performed by man, or produced by nature," and this sentence now serves as the motto of the Society. How far this resolution has been faithfully and diligently carried out will be shown in the following pages.

In his inaugural address Sir William Jones expressed a strong feeling of disapprobation against an elaborate code of rules. He said:

Rules

"It may be advisable at first, in order to prevent any difference of sentiment on particular points not immediately before us, to establish but one rule,—namely, to have no rules at all." He, however, qualified this by adding, "This only I mean, that, in the infancy of any society, there ought to be no confinement, no trouble, no expense, no unnecessary formality. Let us, if you please, for the present, have weekly evening meetings in this hall for the purpose of hearing original papers read on such subjects as fall within our enquiries. Let all curious and learned men be invited to send their tracts to our Secretary, for which they ought immediately to receive our thanks; and if, towards the end of each year, we should be supplied with a sufficiency of valuable materials to fill a volume, let us present our ASIATIC Miscellany to the literary

world, who have derived so much pleasure and information from the agreeable work of Kaempfer than which we can scarcely propose a better model, that they will accept, with eagerness any fresh entertainment of the same kind. You will not perhaps be disposed to admit mere translations of considerable length, except of such unpublished essays or treatises as may be transmitted to us by native authors; but whether you will enrol as members any number of learned Natives you will hereafter decide, with many other questions as they happen to arise; and you will think I presume, that all questions should be decided by ballot by a majority of two-thirds, and that nine members should be requisite to constitute a board for such decisions.

\* \* \* One thing only as essential to your dignity I recommend with earnestness—on no account to admit a new member who has not expressed a voluntary desire to become so; and in that case, you will not require, I suppose, any other qualification than a love of knowledge and a zeal for the promotion of it.<sup>1</sup> No formal resolution was adopted in regard to these suggestions, but they were unanimously accepted as the rules of the Society, and uniformly acted upon for several years. In August 1796, the necessity having been felt for devising “the best means of rendering the Institution permanent, and for determining whether a house should be provided for the future meetings of the Society,”<sup>2</sup> some new rules were framed, and the suggestions of the founder were reduced into the form of rules. Other rules were framed from time to time to meet special occasions, but nothing like a regular code was adopted until the beginning of the second half of this century. On the retirement of

<sup>2</sup> *Researches*, Vol VI p 590

Mr. Henry Torrens, the affairs of the Society were found to be in great disorder, and considerable differences of opinion existed on many important matters. A complete code of rules, providing for all contingencies, was, therefore, deemed urgently necessary, and a committee was appointed to prepare the same. After much deliberation and examination of the rules of European societies, the Committee submitted a new Code of Bye-laws, which was formally adopted on January 5, 1851<sup>1</sup>. One important clause in the Code required that every candidate for admission as an ordinary member shall address a letter stating that "he is anxious to promote the progress of science and literature, and is desirous of becoming a member of the Society." This was done as much in accordance with the opinion of the founder, who had strongly urged in his inaugural address, "not to admit a new member who had not expressed a voluntary desire to become so," as with a view to prevent unseemly repudiation of membership which had occurred in some cases. In practice, however, this rule was found to be unworkable, and had soon to be rescinded. Other clauses were also found troublesome, and a general revision was called for in 1859. On the establishment of the Indian Museum, the altered circumstances of the Society requiring extensive changes in the rules, a new Code was adopted in 1869.<sup>2</sup> This had again to be recast in 1876,<sup>3</sup> and the last is the one now in force, with a few amendments since adopted.

The founder's inaugural address did not suggest any rule for the selection of members, but  
 Ordinary Members at the second meeting of the Society  
 (January 22, 1784) members were proposed, who were

<sup>1</sup> Proceedings.<sup>2</sup> *Ibid*, January 1869, p. 10<sup>3</sup> *Ibid*, November 1876, p. 204

balloted for and elected at the next meeting. At the third meeting such propositions were seconded, and ordered for ballot at the following meeting; and this plan has ever since been uniformly followed.

At first it was not expected that the Natives of this country would join the Society, and Sir William Jones said, "whether you will enrol as members any number of learned Natives you will hereafter decide;" and the question was not mooted for many years afterwards. On January 7, 1829, Dr. H. H. Wilson proposed some native names, and they were elected; similar propositions were subsequently made from time to time, and duly adopted. In the Code of Rules now in force, it is laid down, that "persons of all nations shall be eligible as members of the Society"

As the Society met at the Grand Jury Rooms of the Supreme Court, and no expense of any kind had to be incurred, the Members were not called upon to make any pecuniary contribution to the Society. In 1796, when the idea of providing a suitable house was first mooted, funds had to be raised by subscription, and it was ruled that Ordinary Members should pay a quarterly contribution of one gold mohur each for the support of the Society, old Members being required to make up for their previous membership by a payment of two gold mohurs each, in lieu of the entrance-fee which all new Members were called upon to contribute. The rule regarding the quarterly subscriptions was altered in 1859, when the amount was reduced to Rs. 12 a quarter for resident members, and Rs. 6 for non-residents. Looking to the numerical weakness of European society in India, and to the arduous character of the various occupations in which its members are engaged, it would be unreasonable to expect that many men would be found to devote their time to literary and scientific

pursuits. . Such pursuits require leisure and ease of circumstances, early literary training, and an affluent retired life. Europeans coming to India have to fight the battle of existence, or to discharge onerous official duties, and when they have earned a competence and run through their allotted course of official career, they return to Europe to enjoy a life of ease. Natives, on the other hand, have, generally speaking, a defective education in early life, and cannot engage in researches, the fruits of which have to be recorded in a foreign language. The Asiatic Society has thus always laboured under a double disadvantage. But as Milton truly remarks, — “no man who hath tasted learning but will confess the many ways of profiting by those who, not contented with stale receipts, are able to manage and set forth new positions to the world,” and the highly educated gentlemen, who came out in the civil, the medical, and the military services of the East India Company, fully bore out the truth of the observation. Notwithstanding the heavy duties they had to discharge in their respective spheres, many of them contributed largely to the efficiency, the stability, and the advancement of the Society by their literary labours and scientific researches. It is worthy of note, and not a little singular, that the members of the Civil Service took a much more prominent position in this respect than those of the more learned professions. As was to be expected, merchants, tradesmen, and other non-official Europeans took but a slender share in the work of the Society. The steady growth of the Society is best shewn in the statement given in Appendix A. It shows that, commencing with a total of 30 names, the number of members rose, at the close of 1788, to 89, and in 1876, when the subscription of resident members was brought down to Rs. 9 per quarter, to 285. It should be added,

however, that the various lists from which the statement has been compiled are misleading, as they do not discriminate under one uniform rule the efficient from non-efficient and absent members.

There is no record, in the first volume of the Proceedings, of any resolution having been adopted, laying down a principle for the election of Honorary Members. The first person elected as an Honorary Member was M Carpentier de Cossigny. He was proposed by an Ordinary Member, seconded by another, and balloted for and elected in due course. Other elections followed from time to time, but without any definite rule. Exception was, however, taken to this course in 1828, and, in January 1829, it was resolved "that Honorary Members be in future proposed only by the Committee of Papers, members of the Society not in the Committee communicating their recommendation of an individual as an Honorary Member to the Committee, either directly or through the Secretary. The Committee not to be expected to assign any reasons, should they not see cause to make the nomination" When the resolutions and rules of the Society were codified in 1851, the qualifications for an Honorary Member were laid down to be "eminence for his knowledge of, or encouragement given to, science or literature, or for services rendered to the Society, to be testified by a written statement and supported by the votes of a majority of three-fourths of the members present at a meeting," limiting the elections at the same time to thirty in all. In 1876, the rule was further modified by omitting all reference to services to the Society. The roll of the Society shows that, on the whole, the selections have been judiciously made. It includes the names of all the European *savans* who distinguished themselves

most by their oriental scholarship, and a great number of eminent scientific men of the last hundred years, as also two renowned Indian scholars,—Sri Rádhákánta, Bahádur, and Professor Bápudeva Sástri

Another class of members was established on May 6, 1835, to secure the co-operation of competent persons in India, who would not offer themselves as candidates for ordinary membership. This was called Associate Member, to whom was assigned all the privileges of Ordinary Members except that of voting at the meetings of the Society. Under the rules now in force, this class is reserved for “persons well-known for their literary or scientific attainments, but who are not likely to become Ordinary Members” Their number is limited to 15

A fourth class of members was established in 1851 to recognize the services of correspondents in foreign countries, but it was not much appreciated, and therefore abolished in 1869.

At the second meeting of the Society, Sri William Jones submitted draft of a letter to Warren Hastings, Esq., Governor-General and President, and Edward Wheeler John Macpherson, and John Stables, Esqs., Members of the Council of Fort William in Bengal, requesting them to become patrons of the Society. The draft was approved, and the assent of the Governor-General and Council having been obtained, they were, at a subsequent meeting, duly elected. This election became a precedent, which was regularly followed until the time of Lord William Bentinck : on his election as patron, the Members of his Council were left out. Since then the practice has been to elect only the Governor-General as patron



Along with the letter above referred to, a second was addressed to Mr Warren Hastings, requesting him to accept the office of President of the Society. The offer, however, was declined. While expressing his appreciation of the honor done him by the offer, Mr. Hastings said —“From an early conviction of the utility of the institution, it was my anxious wish that I might be, by whatever means, instrumental in promoting the success of it; but not in the mode which you have proposed, which, I fear, would rather prove, if of any effect, an incumbrance on it. I have not the leisure requisite to discharge the functions of such a station, nor, if I did possess it, would it be consistent with the pride, which every man may be allowed to avow in the pursuit or support of the objects of his personal credit, to accept the first station in a department in which the superior talents of my immediate followers in it would shine with a lustre, from which mine must suffer much in the comparison, and to stand in so conspicuous a point of view the only ineffective member of a body, which is yet in its infancy, and composed of members with whose abilities I am, and have long been, in the habits of intimate communication, and know them to be all eminently qualified to fill their respective parts in it

“On these grounds I request your permission to decline the offer which you have done me the honor to make to me, and to yield my pretensions to the gentleman whose genius planned the institution, and is most capable of conducting it to the attainment of the great and splendid purposes of its formation

“I at the same time earnestly solicit your acceptance of my services in any way in which they can be, and I hope that they may be, rendered useful to your researches.”

In accordance with the suggestion contained in the above extract, Sir William Jones was elected President of the Society on February 5, 1784. He held the office till his demise on April 27, 1794. He was succeeded by Sir John Shore, who then held the office of Governor-General. In subsequent years, two other Governors General, the Marquis of Hastings and Lord Hardinge, held the same office. It was found, however, that the reasons assigned by Mr. Warren Hastings were correct, and that the duties of so exalted an office as that of Governor-General of India did not admit of that close application on the part of the President to the duties of the Society, which was so desirable. The elections, therefore, have been confined to distinguished persons whose knowledge and zeal and opportunities were best calculated to promote the interests of the Society. The names of all the Presidents are shown in the Statement hereto annexed (Appendix B).

In anticipation of the acceptance of the office of President by Mr. Warren Hastings, Sir William Jones was elected Vice-President at the second meeting of the Society. But on his election soon after to the Presidentship, the office became vacant, and none was appointed in his place. On his death, however, when the office of President was held by Sir John Shore, the then Governor-General of India, some inconvenience was felt owing to his inability to attend every meeting of the Society, and in 1796 a resolution was adopted to appoint two Vice-Presidents. The number was afterwards raised to 3, and subsequently to 4, but by the rules now in force it is limited to 3. The Statement given in Appendix B shows the names of all the Vice-Presidents.

Immediately after the establishment of the Society, Mr.

Secretary

George Hillarow Barlow undertook the duties of Secretary ; but, two months after, Mr. John Herbert Haington was appointed Secretary by formal resolution, and for fifty years afterwards, one Secretary, aided at times by a Deputy Secretary, sufficed for the despatch of the Society's ordinary business, the financial affairs being conducted by a Treasurer. On the retirement of Mr. James Prinsep, two Secretaries were deemed necessary, besides the Treasurer, and a third was added some time afterwards. Under the rules now in force, the number of Secretaries is not fixed, but four are generally appointed : one General Secretary, one Natural Science Secretary, one Philological Secretary, and one Treasurer.

Treasurer.

In 1796, when subscriptions first began to be collected, Mr. Trail, of the firm of Palmer and Co., Merchants, was appointed Treasurer, and his firm undertook to transact all banking business for the Society. In 1803, a native clerk was engaged to keep accounts, but all financial business continued to be conducted by Messrs Palmer and Co. After a time, the duty of collecting subscriptions was made over to the clerk. On the failure of Palmer and Co in 1828, the custody of the finances was made over to Messrs Macintosh and Co., and after their failure in 1833, to the Bank of Bengal. The clerk above referred to was the late Bábu Rámacómal Sen. He served the society for nearly forty years, latterly holding the office of what was called 'Native Secretary,' but really that of Treasurer. In 1840, Mr. Bolsi, an uncovenanted assistant in the Bengal Secretariat, was appointed Treasurer, and he kept the records in the Bengal Office, or in his private dwelling. On his dismissal from the Bengal Office, the account-books of the Society could not be recovered.

In 1816, one of the Secretaries became the Treasurer, and that arrangement has continued since

Soon after its establishment, the Society appointed a Committee of Papers, consisting of the President, the Secretary, and four other members, to conduct its affairs. In November 1796, this Committee was strengthened by the addition of two Vice-Presidents, and four other members, and in 1849, another addition was made, bringing up the total to fifteen, including the office-bearers. Under the rules now in force, the minimum is fixed at fifteen, and the maximum at twenty.

In 1816, several active Committees having been organized, it was deemed expedient, with a view to prevent misunderstanding and confusion, to change the name of the Committee of Papers and to designate it the Council, as the governing body of the Society.

Although the Society was established with a view to hold weekly meetings for exchange of notes among members and reading of papers on subjects of interest, the necessity soon arose for appointing special Committees for the consideration of questions of importance. Such Committees were, however generally temporary, and their functions ceased with the determination of the questions referred to them. On the completion of the Society's house, when the means and accommodation for steady, continuous, and combined action were easy of access, Dr Hare, in June 1808, moved, seconded by Dr Leyden, "that a Committee be appointed for the purpose of physical investigations, the collection of facts, specimens, and correspondence with individuals whose situations in this country may be favorable for such discussions and investigations." This the mover subsequently modified, and recommended two Com-

mittees, one for "Natural History, Philosophy, Medicine, Improvements of the Arts, and whatever is comprehended in the general term of *Physics*;" and another "for Literature, Philology, History, Antiquities, and whatever is comprehended under the general term of *Literature*." This recommendation was, after some consideration, formally adopted on September 7, 1808, and the following elections were made:—

*Physical Committee*

J Farquhar, Esq  
 Dr J. Leyden.  
 Lieutenant A Lockett.  
 George Davidson, Esq  
 Rev W Carey  
 W. Hunter, Esq

*Literary Committee*

J H Harrington, Esq  
 Dr J Leyden  
 Lieutenant A. Lockett.  
 H B Bayley, Esq.  
 H. P. Forbes, Esq  
 Rev W Carey.  
 W Hunter, Esq

It was at the same time resolved that other members of the Society should be invited to join the Committees and to frame rules for the conduct of their investigations. The Committees met several times, and prepared lists of desiderata and carried on some correspondence; but, after a time, they fell into disuetude, and no record is now extant of their proceedings. In 1818, the Physical Committee was revived, and it was in active work for several years; but its proceedings are not now forthcoming. At the annual meeting of the Society, on December 13, 1821, Dr Wilson, then Secretary, proposed that "special Committees should be appointed to report upon the papers received by the Society and for other purposes, as also a House Committee, the President, one Vice-President, and the Secretary, being *ex officio* members of all the Committees". But its consideration was deferred, and never after taken up. In 1828, a Committee was appointed "to promote geological researches, working under the rules then in force for the Physical Com-

mittee, with such modifications as may be deemed expedient." Dr. Calder was appointed its Secretary. At the same time the Transactions of the Society were divided into two parts, one to be devoted to Physical, and the other to Literary, subjects. The Physical Committee was in active work for some time, and spent large sums of money in boring operations in Fort William and other researches. A Statistical and a Finance Committee were appointed soon after. No rules, however, were laid down for the annual election of the Committees, and they fell again into abeyance. In 1847, the then Committee of Papers, adverting to the constitution of their body, which, though intended to represent the different objects of the Society, had at one time been almost exclusively composed of gentlemen who deemed Oriental Literature the paramount object of the Society, and at another period of those under whom researches in Oriental Philology were nearly abandoned in favor of Zoology and kindred sciences, recommended the appointment of Sections, or Standing Committees, for (1) Oriental Literature, (2) Zoology and Natural History, (3) Geology and Mineralogy, (4) Meteorology and Physics, (5) Geography and Indian Statistics, (6) Finances. The elections for these Committees took place at the annual meeting, and were followed up by fresh elections every year until the By-laws of 1851 placed the appointment of Committees at the disposal of the Council. An Historical Committee and a Coin Committee have since been added.

As already incidentally noticed, the original object of the Society was to hold weekly meetings  
 Meetings in imitation of the hebdomadal gatherings of the Royal Society two centuries ago, but this could not be regularly carried out for any length of time. In England, the professors of colleges, ministers of

religion, and educated men of independent means and retired from business, have a great deal of leisure time, and a habitual liking for literary and scientific researches, for which they are regularly trained by their system of education. In Calcutta, on the other hand, at the close of the last century, these classes were entirely wanting. As stated in the Introduction to the first volume of the Researches, "a mere man of letters, retired from the world and allotting his whole time to philosophical or literary pursuits, is a character unknown among Europeans resident in India, where every individual is a man of business in the civil or military state, and constantly occupied either in the affairs of Government, in the administration of justice, in some department of revenue or commerce, or in one of the liberal professions; very few hours, therefore, in the day or night, can be reserved for any study that has no immediate connection with business, even by those who are most habituated to mental application, and it is impossible to preserve health in Bengal without regular exercise and reasonable relaxation of mind." And under the circumstances, notwithstanding the earnestness and devotion of the founders and a large body of very able men who placed themselves under the standard of the Society, papers could not be produced in such rapid succession as to keep up the interest of the weekly meetings. After the first few months, frequent interruptions followed, and during the close of the rains in the beginning of autumn, meetings had to be suspended for weeks. After the death of the founder, a resolution had to be adopted to hold monthly, instead of weekly, meetings.<sup>1</sup> In six months' time, even monthly meetings were found to

---

<sup>1</sup> Proceedings for December 5, 1799.

be too frequent, and a meeting once every three months was held sufficient<sup>1</sup>. The interval fixed by the last resolution, however, was found to be too long, and calculated to diminish the interest of the public in the Society, and after a short trial, the plan of monthly meetings was reverted to with occasional recess during the months of September and October. In 1818 some energetic members thought formal monthly meetings not sufficient for unrestrained friendly communications and conversation on literary and scientific subjects, it was thereupon resolved (April 2 1828):—

I That the apartments should be kept open for private meetings at 7-30 P.M. on the second and fourth Wednesdays of every month.

II That the meetings shall be open to every member that chooses to attend and to every visitor whom he may wish to introduce

III That none of the official business of the Society shall be transacted at these meetings, and none of the officers of the Society shall attend, except in a private capacity

IV That the general attention of the Society at these meetings shall be confined to the promotion of those studies and enquiries which were originally contemplated in the institution of the Asiatic Society

There is no record to show how these private meetings were attended, and when they were abandoned

The day of the meeting was originally Thursday. When monthly meetings were resolved upon, the first Wednesday of every month was thought the most convenient, and it remains unchanged to this day. At the close of the last century, the time for dinner among Englishmen was early, and 7 P.M. was found a fit time for meetings, as

---

<sup>1</sup> Proceedings for July 2, 1800



affording a means of recreation to men of literary habits after their meals ; but changes in the social rules of the European community early in this century rendered 8, and subsequently 9, P M as the most convenient hour for the meetings of the Society. Under the rules now in force a recess is observed during the months of September and October

The business at the annual meeting in the time of Sir William Jones was limited to the reading of the annual address. After his death such addresses were not forthcoming, and no annual meeting was held ; the office-bearers were elected, since 1796, at the ordinary December meeting. In 1828 it was resolved, that the anniversary of the Society should be celebrated by an annual dinner, but it was not acted up to in subsequent years. In 1833, Mr. James Prinsep introduced, for the first time, the practice of submitting a brief annual report in January, Mr. Torrens discontinued it in 1841, but his successors revived the practice in 1847, and the rules of the Society now render it imperative. The Code of 1869 provided for an annual address from the Chair, and some very interesting addresses were delivered by Sir Joseph Fayrer, Sir John Phear, Mr. Oldham and Mr. Medlicott ; but the practice of delivering such addresses has of late been dropped

During the presidency of Sir William Jones, no necessity was felt for a house for the Society

House

The Grand Jury Room of the late Supreme Court was always accessible for the meetings of the Society, and there being no office, no effects, and no establishment, no separate accommodation was wanted. On the demise of the founder, the case became different. The Court-house was not always so readily available ; books, papers, records, and specimens of various kinds had accumulated, and they required a store-room, and a natural desire

to secure permanency for these suggested the necessity of a local habitation. It was accordingly resolved<sup>1</sup> that an application should be made to Government for the grant of a free site for a house, and the members should pay a quarterly contribution of one gold mohur each and an entrance-fee of two gold mohurs, which, accumulating for a few years, would yield a sufficient sum to cover the expense of building a house. There is no record to show what reply was given by Government to this application. A second application was made, on July 4, 1804, for a spot of land at the corner of Park Street, which had before been in the possession of a Riding School, but had subsequently reverted to Government, and the Government granted it with the exception of a small portion on the western side, which was "required by the Magistrate of Calcutta for the establishment of a Police Thannah and a Fire Engine." On the remodelling of the Calcutta Police in 1819, the Police-station at this spot was abolished, and, on the application of the Society, the spot was also given to it, free of all rent, for so long as the Society would be in existence. By a subsequent release, dated March 3, 1876, the Government has given the land free of all conditions. The pottah for the land is dated April 7, 1852, and covers an area of a little over three bigahs and a half.

In 1805, when the order of Government granting the land was received, the Society had accumulated a sufficient sum to be in a position to undertake the building of a house. Captain Lock, of the Bengal Engineers, designed a plan, which, after some modifications, was made over to one Jean Jacques Pichon, a Frenchman, settled as a builder in Calcutta, to erect the building. The contract with

---

<sup>1</sup> Proceedings for December 1, 1796

the builder bears date February 1, 1806, and the cost settled was Rs. 24,000. It appears from subsequent Proceedings (April 6, 1808), that the contract amount had to be raised to Rs. 30,000. Extensive additions and alterations have since been made at a heavy cost. The Society took possession of the house at the beginning of 1808.

Although built at the cost, and for the exclusive use, of the Society, the house has been always accessible to the public for literary and scientific lectures. In 1822, the use of the meeting-room was permitted to the Serampore Missionaries for a course of lectures on phenology, and the Medical and Physical Society of Calcutta held their meetings and had their office and library in the house for upwards of thirty years.

One of the objects for which the house was built was to provide accommodation for a Library and a Museum. From soon after the foundation of the Society, books, papers, manuscripts, drawings, copperplates and other articles were, from time to time, presented to the Society, and they had to be kept, owing to want of a better place for their preservation, in the private dwelling-house of the Secretary for the time being; and as the exigencies of European official life in this country led to frequent changes, the risk of loss was serious. The new house at once removed this difficulty. The books that had been received up to the time formed the nucleus of a Library, and funds were sanctioned every year, and also on special occasions, for the purchase of new books. Mr H. T. Colebrooke was also appointed as agent in London to select and purchase books for the Society (October 1, 1817). Exchanges of publications were also made with leading European Societies, and of duplicates in the Library with private individuals, and members returning from the

country sometimes presented selections from their private collections. A small but very valuable collection of works on art was given by Mr Home, who was for several years a leading member of the Society, and a much larger one of historical and other works relating to India was got from Government on the abolition of the old College of Fort William as an educational institution, duplicates and works of general interest being given to the Calcutta Public Library. A very valuable collection of manuscripts, being diverse occasional papers and essays, and ten volumes of drawings of antiquarian and archæological subjects, belonging to Colonel Mackenzie, for a long time Surveyor-General of India, were received in December 1822. A set of abstract translations of the Purānas, prepared by native scholars under the superintendence of Dr Wilson, and several translations from Persian works, have also come to the possession of the Society. A collection of some illustrated works on Botany was received from Dr N Wallich in June 1817, but it was subsequently sent to the Hon'ble East India Company's Botanical Gardens, at Sibpur, near Calcutta.

To facilitate the use of the Library by members a set of rules was framed in January 1820. A catalogue of the whole of the Society's library was published in 1833. It shows a total of about a thousand volumes. After the accession of the College of Fort William collection, a second catalogue of the European books was prepared by the late Dr. E Roer, and that shows a total of 4,315 volumes. A third catalogue was prepared in 1856 by the writer of this Review, and that brought up the total to upwards of 7,000 volumes. Accessions to the Library have since been very numerous and valuable, comprising besides sets, more or less complete, of the Transactions of all the leading European and American learned bodies, nearly all standard

works of reference in science and oriental literature. The total, it is estimated, will exceed 20,000 volumes. Much inconvenience is felt by members from want of a good catalogue of this extensive and valuable collection—perhaps the richest in India. This, however, it is expected, will soon be supplied. There is now in the press an alphabetical catalogue carefully prepared under the superintendence of H. B. Medlicott, Esq. F R S. and it is expected to be completed before the close of the current year.

The early history of the Oriental Library is very much the same as that of the European one.

Library  
Oriental Depart-  
ment

The Society depended mainly on casual gifts from members, and they were not numerous. The first accession of any importance was a gift from the Scringapatam Prize Committee (February 3, 1808). It included a selection from the Library taken in *loot* from the palace of Tipu Sultan. There were among them many old and rare works, including a great number of beautifully illuminated manuscripts of the Quran, and of that part of it called *Pansurah*. An exceedingly well written old text of the *Gulistán*, said to be the first copy from the original manuscript of the author, and a codex of the *Pádshánámáh* bearing an autograph of the Emperor Shah Jehan, were among them. Presentations were also received, on diverse occasions, from the late College of Fort William and the General Committee of Public Instruction, of books published under their superintendence and from other sources. The total, however, did not, in 1835, exceed a thousand volumes. On the abolition of the College of Fort William, the whole of its Sanskrit, Arabian, Persian, and Urdu works, mostly in manuscript, collected at great expense and trouble under the superintendence of Gladwin, Carey, Gilchrist, and other distinguished oriental scholars were placed under the custody of the Society.

with a promise that they would, on the sanction of the Honble Court of Directors being obtained, be given to the Society, subject only to two conditions, namely,—safe and careful preservation—and unrestricted accessibility to the public at all reasonable hours. Pending the receipt of the sanction, the Government defrayed the cost of the establishment, amounting to Rs 78 per mensem. The sanction was obtained in 1846, when the monthly grant was stopped, and the books and manuscripts became the property of the Society—subject only to the two conditions aforesaid.

When the manuscripts came to the possession of the Society it was all but certain that they would ultimately be its property, and in anticipation of the sanction of the Court of Directors Mr Prinsep, then Secretary, caused catalogues to be prepared and printed not only of the new accessions but of all the manuscripts owned by the Society. The Persian catalogue bears date 1837, and contains a total of 2742 names, out of which 1013 are Arabic, 1418 Persian and 311 Urdu,—a few of these being printed books. The Sanskrit catalogue was issued in 1838 and it includes besides Sanskrit a few Māgadhī, Bengālī, Hindi, Cunnari, Telinga and Mahhatti names. The total is in round numbers, 1800. Annexed to this catalogue are lists of Sanskrit works then owned by the Sanskrit Colleges of Calcutta and Benares. These lists were very useful at the time, as shewing the extent of Sanskrit literature then known to exist. The catalogues were prepared by Muulvies and Pandits in the Indian style, and are not very convenient for reference now. They abound, too, in mistakes, and have become obsolete from the circumstance of the Library having been greatly extended since 1838. The accessions in the Persian Department have not been very numerous, in all 167, but several valuable codices

have been obtained. The losses in this department have, however, been greater than the accession. The Sanskrit Library has been nearly doubled ; while the losses, though serious, do not exceed 250 codices. The want of a revised catalogue has, therefore, been much felt, and an attempt was sometime ago made to compile a *catalogue raisonné* of the Sanskrit works. It was then expected that the then Librarian of the Society would be able, with the assistance of a Pandit, to get the needful done. But on his retirement from the Society soon after, the work fell into abeyance. The writer of this Review, thereupon, undertook to finish what was then in the press, and brought out, in 1877, a royal octavo volume of 228 pages, containing descriptive accounts of all the manuscripts on Sanskrit grammar that were available in the Library. It comprised also a tabular statement of all the works of that class which had been met with in India. Other occupations did not, however, permit the editor to carry on the undertaking, and taking into consideration the immense time and labour necessary for such an elaborate work, it had to be finally abandoned. Dr Hoernle has now in the press a nominal catalogue, which, it is believed, will be completed in a short time.

Besides these there are now in the custody of the Society 2,507 Sanskrit manuscripts, mostly new to the collection aforementioned, belonging to the Government of India, and some of great age and value. The ultimate destination of these has not yet been determined upon, but it is expected that they will be so kept by Government as to be always available to Indian and Anglo-Indian scholars.

In addition to the above, the Society possesses a rare collection of Tibetan xylographs, including one complete, and another somewhat defective, set of the *Khalgyun* and the *Stangyur* texts of the Buddhist Scriptures. For

the complete set the Society is indebted to Mr. B H Hodgson, by whose liberality and earnest efforts, its Library and Museum have been so vastly enriched. The second copy was brought down by M. Csoma de Koros. Of these voluminous collections there exists no other copy in India, and only two in Europe, both sent by Mr. Hodgson. To that gentleman the Society also owes its thanks for a very large and exceedingly valuable collection of Sanskrit Buddhist manuscripts, of which an analytical catalogue, prepared by the writer of this Review, has lately been published by the Society.

The Society has also, in its Library, upwards of 350 Chinese xylographs, of which there is, in manuscript, a descriptive catalogue prepared by Mr. Alabaster, the author of a Life of Buddha, published under the name of "The Wheel of the Law." There are, likewise, palm-leaf manuscripts of Burmese, Siamese, Javanese, and Cingalese works, to the extent of about 125 bundles, of which, however, there is no inventory of any kind.

It has not been possible to count, for the purposes of this Summary of the Library Review, all the books and manuscripts contained in the Library, but partly from certain recent accounts and partly from memoranda prepared four years ago, it appears that the Society now owns, or has in custody, of—

English Books and Manuscripts . . .	19,842 Vols
Arabic ditto	1,161 „
Persian ditto	1,506 „
Urdu ditto . . .	300 „
Sanskrit ditto . . .	3,378 „
Ditto Manuscripts (Govt property)	2,507 „
Tibetan Xylographs	256 „
Chinese ditto	350 „
Burmese, Siamese, &c, ditto, manuscripts on palm leaves	125
Total	<hr/> 29 425



• For a colonial Library such a collection of nearly 30,000 volumes, of which upwards of 8,000 are in manuscript, is, it is believed, unrivalled, and the members may well congratulate themselves on their work, bearing in mind that the bulk of it has been got up by private enterprise without any pecuniary help from Government. The work done is highly creditable. Had the Society done nothing else in the course of its career of a hundred years, this collection would suffice to secure to it the thanks of future generations.

Inscriptions and coins are closely related to books; they differ only in the material in which they are preserved, but are fully as valuable as written history, and at times much more so, being far more authentic. Their decipherment has engaged the attention of the Society from a very early date, and some of the most brilliant discoveries in Indian history have been thereby effected. Records of this description are not plentiful; many exist on scraps of rocks and on ancient buildings or sculpture; others occur on stones not easily removable, while records on copperplates are title-deeds which their owners do not part with, and coins are intrinsically so valuable that they are not readily to be had. The members of the Society have, however, been assiduous in their endeavours to obtain them either in original or in facsimile, and a great number has been collected.

Of inscriptions the Society had at one time upwards of a hundred. On the removal, however, of the Society's collection of antiquities from its premises to the Indian Museum, it was deemed expedient to make over all inscribed stones to the Museum, leaving behind in the Library only the records—mostly land grants—on copperplates.

Coins

Coins in gold and silver, when they cease to be current, are soon melted down, and in India, where the practice of wearing ornaments of precious metals is so universally prevalent, the cause of their destruction is constantly at work, while copper coins are not much cared for, and then material is subject to rapid deterioration by the influence of the climate. It is not remarkable, therefore, that the Society was never very rich in this description of relics. Many were exhibited at the meetings, and many more described in the Transactions of the Society, but few were given to it. Nevertheless, from time to time, a few coins were presented to it by various benefactors; and after the death of Colonel Mackenzie, duplicates of such coins as existed in any number in his very large collection, were received through the liberality of the Government of Bengal. These made up the Society's collection of coins in 1832, when they were noticed by Professor H. H. Wilson in the Asiatic Researches.

"Subsequently a great many coins were received at different times; and an imperfect inventory of the collection was published by Dr. Roer in the Proceedings of 1843.

"The cabinet, as described by Roer, consisted at that time of 297 Roman coins, from Augustus down to the destruction of the Occidental Empire, mostly copper, and only a very few rare ones, of Greek coins there were 16; and of Bactrian, Indo-Scythian, Sassanian and Gupta coins only 116. There were at the time, however, two or three bags full of copper coins, which had not been described. A little later in the same year, it received a considerable addition of Norwegian coins.

"In the following year, 1844, it suffered a great loss, all the more intrinsically valuable specimens being stolen. A description of the Cabinet in this despoiled state, to

which, however, a few more coins had been added in the meanwhile, was given by Mr. Freeling in the Proceedings for 1857. In order to retrieve the loss, the Society determined to purchase the well-known and magnificent collection of Colonel Stacy, which had been offered to it for sale at the reduced sum of Rs 4,000. in November 1856. A subscription was opened by the Council among the members, the Society itself contributing Rs 1,200 towards the purchase: and early in 1859, this valuable collection was successfully secured. A priced catalogue of it had already been published by Mr. E. Thomas in the Journal of the preceding year, 1858.

“ Since then many additions have been made from year to year, some by presentations, but mostly by purchase. A catalogue of the Cabinet in its present state is in course of preparation. It is particularly rich in Delhi Patháns and Bengal Patháns, also in the later Bactrians Indo-Scythians, Guptas, and the various sorts of ancient Hindu and Buddhist coins. It might be more complete in the Delhi Moghals; but it is most defective in the provincial Muhamadan coinages of Malwá, Guzarát, Jaunpur, &c., also in some of the more ancient classes, as the Sauráshtrian and Sassanian coins. A small collection of Roman coins in gold was obtained from General Cubbon some years ago. They are of peculiar interest as coming from a trove discovered in the Madras Presidency. Among the copper, lead, and inferior coins generally there are a very large number of duplicates. On the other hand, there are also in the Society's collection a few coins which are unique, and a not inconsiderable number which are more or less rare.”

The Society has, moreover, a small but very valuable collection of oilpaintings and some busts. Pictures and Busts the latter memorials of the many great



time, and it was not until some time after the completion of the house that measures were taken to carry out the object. On February 2, 1814, Dr N Wallich wrote a letter to the Society strongly advocating the formation of a Museum, and offering at the same time not only duplicates from his own rich collection to form a nucleus for it, but his own services to look after it, and in bringing the letter before the Society, the Committee of Papers submitted the following notes, which, though long, are worth quoting to show clearly what it was that the Society undertook:

"A collection of the substances which are the objects of science and of those reliques which illustrate ancient times and manners, has always been one of the first steps taken by Societies instituted for the dissemination of specific or universal knowledge. Such a collection was one of the first objects also of the Asiatic Society, and any person engaged in the study of the history and language of this country, or in the investigation of its natural productions, must have had frequent cause for regretting that such a purpose should have been hitherto so very incompletely carried into effect. No public repository yet exists to which the naturalist or scholar can refer, and the only sources of information, beyond verbal and often inaccurate description, have been found in the accidental accumulations of individuals, always of difficult access, indiscriminate selection, temporary duration, and little utility.

"The Asiatic Society is now called upon to adopt active measures for remedying this deficiency, and collecting, from the abundant matter which India offers, a Museum that shall be serviceable to history and science. In the former of these departments the Society is already in possession of several valuable articles and there can be no doubt that enquiry and exertion, and the assurance of their being properly bestowed, would soon add considerably to the number. There are, however, many things of extremely easy attainment, that would afford much useful illustration, and the student of the original languages and compositions would be frequently extricated from perplexity and doubt by having it in his power to refer to specimens of various Eastern implements and instruments in daily and domestic use amongst the natives of these regions.

“It is, however, in the departments of science that a Museum in this country would be found most specially serviceable, and the facility of its accumulation is proportionable to the extent of its utility. In Natural History, Botany, Anatomy, Chemistry, Mineralogy and other branches, a collection would accumulate rapidly if once commenced, and from the first moment of its accumulation would furnish additional matter to the stock of knowledge. Many objects with which we are exceedingly familiar in this country are new or imperfectly known to general science, and a vast variety of articles may be derived from sources hourly acceptable, each of which would contribute some interesting supply to the extensive results of western enquiry.

• “The importance of the measure is, however, so obvious, that it must be unnecessary to urge it further, and it only remains to consider the means by which it can be effected. The Society possesses accommodation fit for the purpose, and the expense of adapting these to the reception of contributions could not be any amount. The present establishment might perhaps be sufficient to take charge of it, at least for some time, and at any rate no great addition could be requisite. The principal difficulty lies in the selection of a person willing and able to devote some time and trouble to procuring and arranging the materials of which such a Museum should consist, and the removal of this difficulty is the chief inducement at present for the Society to take the subject into serious consideration.

“Dr Wallich offers, if the Society should determine to place the collection under his superintendence, to contribute to it the results of his own enquiries, to appropriate to it such further contributions as come within his reach, and to devote all the attention in his power to the arrangement and conservation of the whole.”

After a careful consideration of the details submitted by the Committee of Papers, the Society came to the following resolutions :—

“Resolved accordingly that the Asiatic Society determine upon forming a Museum for the reception of all articles that may tend to illustrate oriental manners and history, or to elucidate the peculiarities of art or nature in the East

‘ That this intention be made known to the public, and that contributions be solicited of the undermentioned nature.—

‘ Inscriptions on stone or brass.

"Ancient monuments, Muhummadan or Hindu.

"Figures of the Hindu deities

"Ancient coins.

"Ancient manuscripts.

"Instruments of war peculiar to the East.

"Instruments of music.

"The vessels used in religious ceremonies.

"Implements of native art and manufacture, &c., &c.

"Animals peculiar to India, dried or preserved

"Skeletons or particular bones of animals peculiar to India

"Birds peculiar to India, stuffed or preserved.

"Dried plants, fruits, &c.

"Mineral or vegetable preparation peculiar to Eastern pharmacy.

"Ores of Metals.

"Native alloys of metals.

"Minerals of every description, &c., &c.

"That the names of persons contributing to the Museum or Library of the Society be hereafter published at the end of each volume of the Asiatic Researches.

"That the Hall on the groundfloor be fitted up for the reception of the articles that may be procured.

"That the plan and expense of so doing be regulated by the Committee of Papers and Secretary and the person under whose superintendence the Museum may be placed.

"That the expense which may be incurred in preparing materials that may be furnished in a state unfit for preservation be defrayed by the Society within a certain and fixed extent.

"That the thanks of the Society be given to Dr. Wallich for the tender of his services.

"That the services of Dr Wallich be accepted, and that he be in consequence appointed Superintendent of the Oriental Museum of the Asiatic Society "

The Museum thus formed thrived rapidly. Contributions were received under all the heads noticed, and grants were made freely for their preservation. All coins, copper-plates, sculptures, inscriptions on stone, implements and miscellaneous articles received were placed in charge of

the Librarian, while geological and zoological specimens were classified, arranged, and preserved under the superintendence of Dr Wallich, who was appointed their curator, all donations being duly announced in the pages of the Society's Transactions.

The archæotectonic and miscellaneous collection was greatly enriched by contributions from Colonel Stuart, Dr. Tytler, General Mackenzie, Mr B. H. Hodgson, Captain Dillon, Bábu Rámacomal Sen and others. A partial inventory of it was prepared by Dr Roer in 1843, and a complete catalogue was compiled by the writer of this Review in 1847, and published in 1849.

The Natural History Museum remained in charge of Dr Wallich for several years. On his resignation the Society found it necessary to employ one Mr Gibbon as Superintendent on Rs 50 per mensem<sup>1</sup>. The Museum, however, did not, and could not, under the circumstances, get on satisfactorily. What was wanted was a competent knowledge of Zoology and Geology, and that could not be secured for the remuneration offered. The Society had, therefore, to revert to gratuitous aid from amateurs in the ranks of the medical service of the East India Company. The new impulse given to the work of the Society by the appointment of the Physical Committee in 1828, led to the employment of a paid Superintendent on Rs 150 per mensem, and one Mr. Hichins was selected for the post (June 17, 1828). His successor, three years after, was appointed on Rs 200 per month.

The budget of 1836 showed that there were no means available for the payment of a Curator's salary. As it was, however, not desirable to dispense with the services of so

---

<sup>1</sup> Proceedings, August 1817





to save it from impending ruin or to enable it to support its expenses on the same scale of efficiency as heretofore. On the contrary, the Society never had a more flourishing list of contributing members, nor was it ever more actively engaged on the multiplied objects of its attention. Indeed, it would be difficult to mention any department in which its duties have not materially increased within the last few years” He then went on to say :—

“ The Asiatic Society, or it may be allowable to say the Metropolis of British India, has had the germs of a national Museum as it were planted in its bosom. As at *Paris* a new era was opened in the history of its great museum, the *Jardin des Plantes*, through the discoveries of extinct and wondrous animal forms exhumed from the rocks on which the town was built, and which required all the adjuncts of comparative anatomy for their investigation even by the master hand of the great *CUVIER*; so in *Calcutta* through the munificence of a few individuals and development of fossil deposits in various parts of India hitherto unsuspected, we have become possessed of the basis of a grand collection, and we have been driven to seek recent specimens to elucidate them. Our desire has been warmly seconded by all who have enjoyed the opportunity of contributing; from *China*, from *New South Wales*, from the *Cape*, and from every quarter of the Honorable Company’s possessions, specimens of natural history, of mineralogy and geology, have flowed in faster than they could be accommodated, and the too little attention they have received has alone prevented similar presentations from being much more numerous, for it is but reasonable to suppose that, of the stores continually despatched to England or the Continent, the Society would have received a larger share had it done proper honor to what it has received.

“ In May 1835, the Society resolved to try the experiment of appointing salaried officers<sup>2</sup> to the charge of its Museum. For two years economy in other departments has enabled it to maintain this

<sup>1</sup> Journal, Vol VI, p 493

<sup>2</sup> Incorrect.

system, and the good effects of the measure are visible to all who visit the rooms. Yet, not being able to purchase more than a small portion of the time of a competent naturalist, the benefit has been comparatively limited, and now at the very commencement of the experiment, the state of the Society's funds will compel it to withhold further support from its incipient museum, unless some fresh source of income be provided

“ These then are the motives that have persuaded the Society of the propriety of an appeal to the Ruling Power:—not to contribute to the ordinary wants and engagements of the institution, but to convert that institution into a public and national concern by entrusting it with the foundation and superintendence of what has yet to be formed, for the instruction of our native fellow subjects, as much as for the furtherance of science,—a public depository of the products of nature in India and the surrounding countries properly preserved, properly arranged, and properly applied.

“ To effect such an object it is indispensable that the services of a professional naturalist of high attainments should be engaged, and that he should have at his command the means of working effectually, and of devoting his whole time to the employment ”

authorities, rather than by the Local Government. In the first place, the Honorable Court of Directors are themselves at considerable expense in keeping up a museum and library at the India House, and though his Lordship in Council concurs with you in thinking that such institutions in Europe, however perfect, do not supersede the necessity of providing similar in India likewise,—with reference especially to the spirit of literary inquiry and scientific research which it is desired to excite and encourage amongst the native youths of India; still the fact that the Honorable Court have a separate institution of their own, points to the propriety of making them the judges of its sufficiency or the contrary for Indian purposes. Moreover, were the Government of India to sanction a specific annual grant for a museum and library in Calcutta under the management of your Society, such a grant would reasonably be made a precedent for similar applications from learned Societies at other Presidencies, and his Lordship in Council is not prepared to decide without a reference to England upon the relative claims of such Societies with reference to the circumstances of the institutions themselves and of the Presidencies and places where they may be established ” (June 1837 )

On the receipt of this, a second petition was submitted, from which the following is an extract :—

“The Society feel that they have every reason to be highly flattered with the condescension and consideration extended to their address by the members of Government, and although a reference to the Honorable the Court of Directors has been deemed indispensable before finally determining on the adoption of the Society’s proposition for the formation of a national museum at the cost of the state, still they entertain the most sanguine assurance of a favorable issue under the encouragement and recommendation with which His Lordship in Council has been pleased to promise that the reference home shall be accompanied

“On the strength of this confident expectation a very full meeting of the Society, held on the 5th instant, came to the resolution that it would be unadvisable at such a juncture to break up the establishment, and abandon the incipient Museum upon which

they had for two years devoted so considerable a portion of their income, and thus perhaps have to recommence their collection a year hence, should the Honorable Court acquiesce in the proposed measure.

"It was consequently resolved that a second respectful application should be submitted to the Right Honorable the Governor-General in Council in immediate connection with their former address to inquire:—

"Whether, in order to maintain the Society's Museum in its present state of efficiency, pending the reference on the subject of its extension and conversion into a public institution, the Government would be disposed to sanction a monthly grant of 200 rupees, the actual sum which is now obliged to be withdrawn from this object on account of other calls on the Society's funds."<sup>1</sup>

This prayer was at once granted, and Dr. Pearson was appointed Curator. He was succeeded by Dr. McLelland. The reply of the Court of Directors came in their Despatch No 17, of September 18, 1839. The Court fully recognized the claims of the Society, and, adverting to the Society's immediate permanent want of a qualified person to preserve its collections, remarked, that they "would not object to the Government allowing the Society a monthly sum of 200 or 250 rupees a month as salary to a Curator, with a further sum of 50 rupees a month for the cost of preparing specimens and maintaining the collection in order." They went further, and said: "We shall not object to your granting to the Society funds for special purchases, as occasions arise, as far as may be compatible with a due regard to public economy. On all such occasions, you will forward to our Museum a selection from the articles which may have been so procured"<sup>2</sup> The only condition attached to this was, that "the articles to be purchased should not be of a perishable nature."

<sup>1</sup> Proceedings July 1837

<sup>2</sup> *Ibid*, November 1839

The question now arose as to whether a competent Curator should be brought out from Europe, or one appointed in India. Opinion was very much divided, particularly as the officer then in charge of the Museum, Dr. McLelland, was thoroughly well-qualified for the office. That gentleman, however, did not agree to the terms proposed of two hours' daily attendance at the Museum, and a monthly report of progress. It was resolved, therefore, to write to Dr. Wilson, then the London Agent of the Society, to select a fit person. The person selected was Mr. Edward Blyth, who took charge of his office in September, 1841.

It was generally expected that the Curator sent out from England would be able to take scientific charge of the whole of the Museum; but this could not be done. Thoroughly competent as Mr. Blyth was as a naturalist, he had not studied geology to such an extent as to be fit to be a scientific curator of that department. In his letter to the Secretary, dated September 22, 1841, he himself said: "It is in the Mineral department, unfortunately, that I am at present less qualified, by previous study, to devote my immediate and first labours advantageously for the Society; but with the opportunities for study which are now before me, and with the liberal encouragement and support I may reckon upon receiving, I do not fear but that I shall soon render myself competent to discharge that portion of my duty which relates to the efficient management of the Museum of Economic Geology, this being a subject in which I feel the liveliest interest, and with the high importance of which I am deeply and thoroughly impressed"<sup>1</sup> This difficulty was, however, soon overcome. The satisfactory working of the coal mines at Rániganj, and the reports

---

<sup>1</sup> Journal, Vol. XL, pp 756.







ment to preserve it than what the Society could provide. Taking these circumstances into mature consideration a resolution was adopted to the effect, that "the Council enter into a communication with the Government on the subject of the foundation at Calcutta of an Imperial Museum, to which the whole of the Society's collections, except the library, may be transferred, provided the locality, the general arrangement, and management be declared, on reference to the Society at large, to be perfectly satisfactory to its members."<sup>1</sup> The Mutiny of the native troops in the N. W. Provinces, however, soon after followed, and the matter was consequently left in abeyance. In October 1858, the question was revived, and a representation was submitted to Government, giving in detail the views of the Society on the subject of the proposed museum; but it failed in its object. The Government, while recognizing it as "its duty to establish in the metropolis an imperial museum for the collection and exposition of specimens of natural history in all its branches, and of other objects of interest—physical, economical and historical"—declined to entertain the project on financial grounds. At the same time it renewed its offer regarding the geological and palæontological collections. The Society, thereupon, submitted a memorial to the Secretary of State, and, while awaiting a reply to this, applied for an extra grant from the Government of Rs. 200 per mensem, which, though at the time declined,<sup>2</sup> was, on a renewal of the application two years after, sanctioned.

Adverting to previous correspondence, the Government, in May 1862, announced that, "in the opinion of the Governor-General in Council, the time had arrived when the

<sup>1</sup> Proceedings, May 6, 1837.

<sup>2</sup> *Ibid*, April and June 1859

foundation of a public museum in Calcutta, which had been generally accepted as a duty of the Government, may be taken into consideration with regard to its practical realization," and then gave a sketch of the terms on which the Society's collections may be transferred to it<sup>1</sup>. Negotiations now followed, which were protracted till the middle of 1865, when the following conditions were finally settled, viz :—

1. That, in consideration of the Society's making over its zoological, geological, and archaeological collections to a public museum to be established and maintained by Government, and made over to a Board of Trustees, the Society shall be provided with suitable accommodation in the house which was to be built by Government for the museum, and to have exclusive possession, occupation, and control of the portion so allotted to it.

2 That the Society shall have the right of nominating from its own body one-third of the members of the said Board

3 That it shall retain exclusive possession of its own house

4 That it shall make over to the new museum all archaeological and natural history specimens that it may, in future, receive from its members

A law to this effect was passed in 1866 (Act XVII), and the collections were formally made over to an officer of the Board of Trustees appointed under it. An arrangement was also made to allow the collections to remain in the Society's premises until the proposed building could be completed

The time occupied in building the new house was pro-

---

<sup>1</sup> Journal for 1862, p. 320

tracted, and the inconvenience felt by the Society from want of room for the accommodation of its daily expanding Library was great ; and a special house-allowance was granted by Government at the rate of Rs. 400 per mensem from December 1, 1874.

A misunderstanding arose about this time as to the number of rooms the Society should be permitted to occupy in the new house. The officers in charge of the Museum and the Board of Trustees were of opinion that the whole of the accommodation available in the house then in course of erection would be ultimately required for the purposes of their charge, while the members of the Society were reluctant to enter into a house where accommodation was insufficient, and freedom of action cramped. It was felt, too, that the Society's position as an independent body would be injured by its office being 'huddled in the corner of a house occupied by two such large Government establishments as the Geological Survey and the Natural History Museum, and forming as it were a mere annexe to them. The Government, thereupon, referred the matter for settlement to a Committee consisting of Sir Ashley Eden and Dr. Oldham, and, at their recommendation, paid the Society the sum of Rs 1,50,000 as compensation for its claim to accommodation in the Museum building.<sup>1</sup> This arrangement has proved highly beneficial both to the Society and to the Museum:

The exertions made for the establishment of the national museum, and the endowment of it with the richest collection of specimens available in India, are acts for which the Society deserves high credit. To quote the language of an elegant writer in the '*Calcutta Review*.'

---

<sup>1</sup> Proceedings, July 1876

“Had it done nothing else to promote science during the last ten years, it would have entitled itself to the gratitude of posterity for the vigor with which it has prosecuted to success a project fraught with so much public usefulness.”

Although Sir William Jones contemplated the publication of a volume of ‘*Asiatick Miscellany*’ every year, no attempt was made to get out such a periodical during the first three years of the Society’s career. Most of the papers received during the first year were short and unimportant, and it was not until the middle of the year 1787 that the Society was in a position to go to press with the first volume of its *Transactions*. The Society, however, had no funds of its own at the time, and there was no publisher in Calcutta who could undertake the work at his own responsibility. Ultimately one Mr. Manuel Cantopher, of the Hon’ble East India Company’s Printing Office, undertook the job as a private speculation, on the understanding that every Member of the Society would take the book at Rs. 20 a copy. The name then approved for the periodical was “*Asiatick Researches*,” instead of what the founder had originally suggested. The first volume appeared in 1788, and the second followed in 1790. The third, the fourth, and the fifth volumes appeared successively in 1793, 1795 and 1797, under the same conditions, the price being reduced to Rs. 16 per copy. The work created quite a sensation in the literary world, and the demand for it was so great, that a pirated edition was brought out in England in 1798. This also sold so rapidly that, within the next five or six years, two other editions were brought out in octavo. The demand for the work was also urgent on the Continent, and a French translation was brought out in

Paris under the title of "*Recherches Asiatiques.*" In introducing it to the public, the translator, M. A. Labaume, remarked: "*cette collection a inspiré en Angleterre un intérêt, qu'il est à-peu-près impossible de se procurer aujourd'hui un exemplaire de l'édition originale de Calcutta, et qu'il en été fait à Londres trois éditions, qui sont presque entièrement épuisées: cependant elles sont fort incorrectes et remplies de fautes importantes.*" The translation was a faithful one, and it was enriched by a series of valuable notes on the philological and historical papers by M. Langlès, and on the scientific papers by MM. Cuvier, Delambre, Lamarck and Olivier. The estimation in which the work was then held was thus indicated by the editor: "*la plus riche collection de faits qui existe sur l'Inde, ce pays qui attire les premiers regards de ceux qui veulent étudier l'histoire des hommes*"

The plan of quarterly contributions from Members had placed the Society in some funds in 1798, when the sixth volume was about to be sent to press; and, looking to the rapid and profitable sale which the first five volumes had met with, the idea was taken up of bringing out the next volume on account of the Society. The proposal was that the same printer should continue to print the work, but at the cost of the Society, which was to reimburse its outlay by charging the Members at Rs. 12 a copy. Volumes VI—XII were published under this arrange-

---

\* The full title of the translation runs thus "*Recherches Asiatiques ou Mémoires de la Société établie au Bengale pour faire des recherches sur l'histoire et les antiquités les arts les sciences, et la littérature de l'Asie, traduits de l'Anglais par M. A. Labaume. Revus et Augmentés de notes pour la partie Orientale, Philologique et Historique par M. Langlès, et pour la partie des Sciences exactes et naturelles, par MM. Cuvier, Delambre, Lamarck, et Olivier. Paris 1805, 1806, 1807, 2 vols*"

ment.<sup>1</sup> This arrangement did not, however, prove advantageous. The cost of printing became heavy, and the sale-proceeds did not fully recoup the outlay. In 1819, it was therefore proposed that the copyright should be sold to a London publisher, and the work brought out at shorter intervals than heretofore. The project, however, fell through. Following the example of European Societies, it was besides resolved that the Researches should be given to members gratis. This increased the responsibility of the Society, and caused greater delay in the publication of its Transactions. In 1829, when the Physical Class was in active work, a resolution was adopted to divide the Researches into two parts, one to be devoted wholly to scientific papers, and the other to literary contributions. This plan was carried out in Vols XVII, XVIII, XIX, and XX, but as the two parts were intended to be bound together, no appreciable advantage was gained by it. On the contrary, the scientific parts did not sell so readily as the literary ones, and many copies of the stock were accordingly made defective. In 1837, Mr James Pinsep brought out a very carefully prepared analytical index of the first eighteen volumes of the Researches. This was a valuable acquisition, as it made the rich treasures of the Society's Transactions readily accessible to students. It did not suffice, however, to revive public interest in the valuable but tardily-issued publication; and soon after the completion of the second part of the twentieth volume of the Researches in 1839, the work was finally abandoned.

The causes which contributed to the stoppage of this

---

<sup>1</sup> The dates in which Vols VI to XX were issued, were — Vol VI in 1799, Vol VII, in 1801, Vol VIII, in 1805, Vol IX, in 1807, Vol X, in 1808, Vol XI in 1810, Vol XII, in 1816, Vol XIII, in 1820, Vol XIV, in 1822, Vol XV, in 1825, Vol XVI, in 1828, Vol XVII, in 1832, Vol XVIII, in 1833, Vol XIX, in 1836, and Vol XX, in 1839.



publications, however, were dropped in 1827. A substitute for these was provided in 1829 by Captain J. D. Herbert, Deputy Surveyor-General, in a monthly publication which he started under the name of 'Gleanings in Science.' His primary idea was to confine it to extracts and abstracts from European scientific publications, but original contributions poured in so rapidly that he had to abstain from ~~extracts~~. The Society benefited by this publication so far that a *precis* of its monthly proceedings, which had heretofore been preserved in manuscript, was regularly published. Captain Herbert, however, was appointed Astronomer to His Majesty the King of Oudh in 1830, and Mr. James Prinsep, who had been associated with him in the undertaking, instead of dropping the work, proposed to change its name and call it 'The Journal of the Asiatic Society.' The sanction was given in March 1832. The 'Journal,' however, as it appeared in that month, bore the name of the 'Journal of the Asiatic Society of Bengal.' Its character, too, was entirely changed. Instead of being a scientific periodical, it became essentially literary. It came out also with the additional advantage of free postage, the Government having, in consideration of the Editor publishing Dr. Buchanan-Hamilton's 'Statistics of Bengal' as an appendix to it, conceded that privilege. For the first two years, moreover, it was given to the members free of charge. The frequency and regularity with which this Journal appeared recommended it strongly to the notice of authors, and many papers which would have been otherwise reserved for the pages of the 'Researches' found their way into the 'Journal.'

The Journal, thus established and conducted, superceded the Researches. The privilege of franking <sup>of</sup> allowed it was withdrawn



of sufficient interest to be worthy of publication. Another change was also at the time suggested. The complaints which necessitated the division of the *Researches* into two parts in 1829 were now brought to bear upon the *Journal*, and a similar division had to be adopted. Care was at the same time taken to keep these Parts so distinct by separate pagination and separate indexes as to form two separate serials, so that the scientific scholar may have the scientific matter without the admixture of what to him appeared as literary lumber, and the orientalist may not have to pay for scientific matter, in which he did not feel himself interested. This arrangement necessitated the employment of three Secretaries, one to look after the general business of the Society and edit the *Proceedings*, one to edit the scientific part of the *Journal*, and a third to take charge of the literary portion.

The most frequent contributors to the *Journal* have been Mr. J. Prinsep, Mr. B. H. Hodgson, Col. P. T. Cautley, Mr. E. Blyth, Mr. H. Piddington, Dr. H. Falconer, Dr. G. G. Spilsbury, Dr. J. Campbell, M. Csoma de Koros, Capt J. D. Cunningham, General A. Cunningham, Col. R. Everest, Major M. Kittoe, Capt. Hutton, Capt. J. W. Sherwill, Col. J. Abbott, Capt J. Newbold, Mr. H. F. Blanford, Mr. W. T. Blanford, Dr. R. Mitra, Mr. Wood-Mason, and Mr. H. Blochmann.

A list of all the contributors with the titles of their contributions will be found in Appendix D.

Counting each part as a volume, the Society has published, either directly or indirectly, and including the index, eighty-four volumes of the *Journal*, and nineteen volumes of the *Proceedings*.

These 103 volumes represent, roughly speaking, a total of closely printed matter, replete with

interest Their bulk, however, has made their use a matter of great trouble To obviate this the writer of this Review prepared, and published in 1856, an index to the last two volumes of the Asiatic Researches and the first 23 volumes of the Journal; but it was compiled, as stated in its preface, "to render the varied and valuable matter contained in the Transactions of the Society easy of reference to the compiler, and pretended to be nothing more than a resumé of the several-volume indexes to the Journal and Researches, giving, under the usual alphabetical arrangement, nothing more than the subjects, the names of authors, and the local connection of the articles as they appear in their titles." A carefully-arranged analytical index to the entire set is what is now much needed, and it is to be hoped that the beginning of the second century of the Society's career will be signalized by such a compilation

The subject, nature, and value of the papers published in these volumes have been noticed at some length in the subsequent parts of this Review. Suffice it now to observe that they have contributed greatly to enhance the reputation of the Society.

Though himself actively engaged in the translation of oriental works into the English language, Sir William Jones seems to have entertained no idea of the Asiatic Society immediately taking up the task of printing oriental texts. or of translating them; and it was not until several years afterwards that the subject was mooted The first proposition came from the Brethren of the Baptist Mission at Serampore, who offered to undertake, under certain conditions, the publication of a series of Sanskrit works with translations,<sup>1</sup>

---

<sup>1</sup> Proceedings May 15, 1806

and the Society, on the recommendation of the Committee of Papers, agreed to give the Missionaries the aid required, the patronage being limited at the time to a single work to be selected by a Committee appointed for the purpose.<sup>1</sup> The work approved was the *Rámáyana*, and the Society agreed to pay a monthly contribution of Rs. 150, on the distinct understanding that the work would be completed in three years. On October 7, 1807, a second book ~~was~~ selected—the text of the *Sánkhyā*,—and a resolution was come to to extend the monthly grant to a period of eighteen months after the expiration of the first three years. The plan, however, fell through, and the contribution was stopped after the publication of the first three volumes of the *Rámáyana*. While these negotiations were proceeding, Sir James Mackintosh, then President of the ‘Literary Society of Bombay,’ submitted a scheme for the regular publication of Sanskrit texts; and on July 2, 1806, the Asiatic Society resolved to “publish, from time to time, as their funds will admit of it, in volumes distinct from the Asiatic Researches, translations of short works in the Sanskrit and other Asiatic languages, or extracts and descriptive accounts of books of greater length in those languages, which may be offered to the Society and appear deserving of publication,” and “that, as this publication may be expected gradually to extend to all Asiatic books of which copies may be deposited in the Library of the Society, and even to all works extant in the learned languages of Asia, the series of volumes be entitled ‘*Bibliotheca Asiatica*,’ or a descriptive catalogue of Asiatic books, with extracts and translations.” No action seems to have been taken in accordance with these resolutions, beyond a few casual grants in aid of oriental publications by private individuals

---

<sup>1</sup> Proceedings, July 3, 1805

On the arrival of M. Csoma de Koroš at Almorah, after his long sojourn in Tibet, occasion arose for the Society to obtain from Government a grant for the publication of that distinguished scholar's Tibetan Grammar and Dictionary (1830). The Society at the same time sanctioned an allowance of Rs 50 per mensem to that gentleman, who was then in very straitened circumstances. This allowance was continued to the day of his death in May 1843. Soon after, the Society undertook to print an Annamatican Dictionary, prepared by the Bishop of Isanopolis. Subsequently, grants were obtained for the publication of a Burmese and a Siamese Dictionary, as also for Mr Macnaghten's edition of the *Sháhanámeh* and Mr Brownlow's edition of the Mian manuscript of the *Alif Láulá*, the printing of which the Society undertook to superintend.

It was not, however, until 1835, that any systematic attempt was made for the publication of oriental works. The battle which had long raged between the Anglicists and the Orientalists, in regard to the language best adapted for the education of the people of this country, came to a close with the overthrow of the latter, and the Government adopted a resolution to put a stop to all oriental works which were then in the press on its account, directing the printed sheets 'to be sold' as 'waste paper'. The Society now intervened, and, after protracted discussions at two sittings, came to a resolution to undertake the completion of the abandoned works, and to arrange for the carrying on of similar works in future<sup>1</sup>. The last part of the resolution was referred to a Special Committee, consisting of Dr Mill, Mr Hay Macnaghten, Mr Turton, Mr William Grant, Mr J. R. Colvin, and Mr J. Prinsep, with a view

---

<sup>1</sup> Proceedings, April and June, 1835

“to prepare a memorial from the Society to the Court of Directors and the Board of Control, stating that Government here have withdrawn the funds hitherto appropriated to the revival of oriental literature in this country,—and respectfully impressing upon the authorities at home the importance of having some public funds appropriated to this purpose, and requesting them to adopt such means as they think fit for providing a sufficient sum for this important subject”<sup>1</sup> A strong representation was got up, and forwarded under the signature of Sir Edward Ryan, then President of the Society, to the Court of Directors,<sup>2</sup> and an application submitted to Government for the gift of the printed sheets of the abandoned works

The works abandoned were :—(1) The *Mahābhārata*, of which 1,400 pages had been printed, and 2,000 remained unfinished ; (2) the *Rājataranginī*, of which about 200, out of 620, pages had been printed ; (3) the *Naishadha*, of which 200, out of 600, had been printed ; (4) the *Sausruta*, of which about one half had been printed , (5) the *Sartravidyā*, a Sanskrit translation of Hooper’s *Vade Mecum*, of which a few pages only had been printed ; (6) the *Fatāwe Alamgiri*, in six volumes royal quarto, of which only two had been printed ; (7) the *Ināya*, in four volumes quarto, of which the last two had been printed ; (8) the *Khāzānat ul Ilm*, a quarto volume of 620 pages, of which about one-fifth remained to be printed ; (9) the *Jawāme ul Ilm ul Riāzi*, an Arabic translation of Hutton’s ‘ Mathematics,’ a quarto volume of 120 pages ; (10) the *Anis ul Musharrakin*, an Arabic translation of Hooper’s *Vade Mecum* by Dr Tytler ; and (11) a Treatise on Algebra in Arabic The cost of finishing these works was estimated

at Rs. 20,000, and in a Prospectus issued at the time, the patronage of the friends of oriental literature and of the public of India was solicited in aid and support of the important undertaking. The co-operation of European literary associations was also invited. The call was cordially responded to. The President of the Société Asiatique de Paris wrote a sympathizing letter, offering the co-operation of the Society he represented,<sup>1</sup> and the native public most warmly took up the cause. The Pandits and the Maulvies who had been employed by Government to edit the works volunteered their services free of charge, and one gentleman, Naváb Tauhar Jang, of Chitpur, undertook to defray the entire cost of printing the *Share ul Islám*.

The works, with two exceptions, were completed in four years. The exceptions were the *Saṁśrāvidyā* and the Treatise on Algebra. The former was, after protracted discussions, abandoned, because it was thought that it would be useless without a profusion of woodcut illustrations, which could not be procured in India at that time; and the latter, because there seemed to be no demand for it.

The petition of the Society to the Court of Directors was at first coldly received; but through the exertions of Professor H. H. Wilson, then the London Agent of the Society, and of the President and other influential members of the Royal Asiatic Society, a grant of Rs. 500 per mensem was ultimately sanctioned. The correspondence on the subject appears in the Proceedings of June 1838. The following extract from the Court's Despatch will show the terms on which the grant was made. Writing to the Government of India, the Court said:—"Although the works formerly published may not always have been

---

<sup>1</sup> Proceedings, November 1836

selected in the most judicious manner, we are still of opinion that the publication of works—and works on instruction in the Eastern languages—should not be abandoned; we therefore authorize you to devote a sum, not exceeding five hundred rupees a month, to the preparation and publication of such works, either through the medium of the Asiatic Society, or any equally appropriate channel, and we shall expect an annual return of the works published, in copies of each book for distribution in this country."

The means thus placed at the disposal of the Society have enabled Mr. James Prinsep to have done an immense deal of good, but his arduous and unremitting labours of several years in India had undermined his health, and he was obliged, immediately after the receipt of the Despatch, to retire from India for a change. It was hoped that the bracing air of his native land and abstinence from work would soon bring on a restoration, but he sank under his illness early in 1840. The estimate he had formed of the probable cost of completing the works was insufficient, and, at the time of his retirement, there was a heavy debt, for the payment of which his successors, Dr. O'Shaughnessy and Mr. Sutherland thought fit to confine their oriental works to the completion of the *Mahábhárata*. Mr. Henry Thomas was elected Secretary in May 1840. He was a distinguished scholar, an elegant writer, and a linguist, but he had neither the energy nor the aptitude to control financial details, and was withal unmindful of the restraints of rules, and under his management the grant was frittered away on works which did not come under the terms of the Court's Despatch. The annual account called for by the Court was not rendered during the whole time of his management to the close of 1846. The only new work published during

his secretaryship was an edition of the *Tārīkh-i-Nādsī* in Persian. A contribution of Rs 500 was also paid to cover the cost of printing a selection of small poems in Sanskrit, under the name *Kāvya-sangraha*. When the accounts were cast in the last named year, it was found that no less than Rs 25,000 had been devoted to purposes unconnected with oriental literature.

\* The immediate question before the Council of 1847 was, how to utilize the grant, and a Committee was appointed to devise means to carry out the Court's wishes regarding the publication of the Vedas. The plan approved by the Society was, as suggested in a judicious minute by Mr Landley (dated December 1847) to start a monthly serial under the name of 'Bibliotheca Indica' and the editorship of a competent scholar, aided by a staff of Pandits. The work was taken in hand at the beginning of 1848. Dr Roer was appointed the chief editor on a salary of Rs. 100 per mensem, and his principal duty was to supply English translations of the works taken in hand. The first work selected was the *Saṁhitā* of the *Rīg Veda*, but before four fasciculi of it could be published, news arrived that the Court of Directors had made arrangements with Dr. Max Muller for the publication of that work, together with an English translation by Dr H. H. Wilson, and the Society's project had, therefore, to be abandoned. Dr. Roer then took up the *Upanishads* and some other works.

At the close of 1850, the Council appointed a Sub-Committee to report on the publication, and at their suggestion the post of chief editor was abolished, and rules were framed for the remuneration of editors according to the nature of the work done. The Committee further suggested, "that, whilst it is of the highest importance for



scholars in the Council of the Society have at times caused a slight preponderance on the one side or the other.

The practice now is to divide the grant into two parts, one of which is devoted to Sanskrit, and the other to works in Arabic, Persian and other languages. This apportionment was first brought to the notice of Government in 1868 by Mr. Whitley Stokes, then Legal Member of the Supreme Council, who, while accepting the propriety of it, remarked, that, in view of the vast extent and paramount importance of Sanskrit literature, and the little that has yet been done towards its preservation, the amount devoted to it was very small, and recommended it to be doubled. The Government approved of his suggestion, and the Society now receives an additional allowance of Rs. 250 per mensem exclusively for Sanskrit works.

The total number of Oriental works published by the Society up to date amounts to 140. Of these, one hundred and eleven have been published, or are in course of publication, in the 'Bibliotheca Indica.' The works may be noticed under two heads : 1st, Semitic ; 2nd, Sanskritic. The Semitic series includes, besides some standard law books in Arabic, all the standard works in Persian, on the general history of India, together with a critical edition and an English translation of the *Ain-i-Akbari*, the well-known Gazetteer of Akbar's extensive empire. An imperfect version of this work was published early in this century by Mr Francis Gladwin, but it did not include the most important part of the work—its numerous tabular statements. The translation, moreover, had been long since out of print. The late Mr. Blochmann, therefore, undertook a new and faithful translation, and brought out the first volume in 1873, together with the whole of the text. For rigorous exactitude of rendering, for faithful repre-

sensation of the spirit of the original, and for the richness, variety and profusion of its illustrative and explanatory notes, the book is a model of its kind. No Persian work has as yet had the benefit of so able and so faithful an interpreter. It is deeply to be regretted that the lamented death of its learned and enthusiastic Secretary has deprived the Society not only of his invaluable services, but also of the opportunity of completing the work in the same style.

The Sanskrit series includes the leading works of almost all the departments of Bráhmánic literature. The Vedas are represented by twenty-five different works; the Purá-nas, by three, the philosophical schools, by the text-books of all the six leading systems and several commentaries; the Yotishah, by three, two with translations. The law-books, the rituals of the Vedas, grammar, rhetoric, and other branches have also been represented by important works. Notices of these in some detail will appear in a subsequent part of this Review. It is doubtful if any Society in Europe has, within fifty years, done for any classic literature as much as the Asiatic Society of Bengal has done for Sanskrit literature since 1847. This work alone has given to it the highest claim to the consideration and respect of the people of this country and of oriental scholars in all parts of the world.

Up to date, the Bibliotheca series has come up to a total of 747 fasciculi; of these 280 are Semitic, including English translations of four works in 28 fasciculi. The names of the translations are: 1, *Am-i-Akbari*, 2 *Tabakát-i-Násiri*, 3 *History of the Khalífs*, 4 *Shamshúh*, or the *Logic of the Arabians*. The Sanskrit series takes up 467 fasciculi, including translations of twenty different works in 50 fasciculi. The works in the Semitic series have been edited by Dr. Aloys Sprenger, Captain Nassau

Lees, Hekekyan Bey, Mr. Henry Blochmann, Major Raverty, Captain Jaurett, and the Maulvies of the Calcutta Madrisa. The credit of the Sanskrit series is due to several scholars, of whom—

Dr E Roer	...	...	edited 33 fasc
„ Fitz-Edward Hall	...	...	18 „
„ Ballantyne	...	...	5 „
„ E B Cowell	..	..	17 „
Professor Jayanáráyana Tarkapanchánan	.	..	19 „
„ Bharatachandra Suomanu	..	..	16 „
„ Mahesachandra Nyáyaratna	.	..	19 „
Pandit Satyavrata Sámasrami	..	..	44 „
Dr Rájendralála Mitra	..	..	83 „
„ Hoernle	..	..	12 „

Appendix C supplies a detailed list of all the works published.



Asiatic Society had at its disposal a moderate addition to those funds, in an annual sum of five to six thousand rupees, the execution of the scheme might be immediately commenced, and its accomplishment might be expected at a period not very remote "

The Government received the proposition very favorably, and strongly recommended it to the notice of the Court of Directors ; but the Board of Control declined to make the grant, and the project dropped. Mr. Prinsep, in 1837, revived the idea ; and, in the Sanskrit catalogue of the Society's Library, included, by way of a first instalment, the names of all the works contained in the libraries of the Calcutta and the Benares Sanskrit Colleges. This, however, did not meet the requirements of the case, and, in 1867, Pandit Rádhákissen, of Lahore, urged the adoption of a comprehensive scheme that should bring to light the treasures of Sanskrit lore buried in private libraries in India. The Government of Lord Lawrence took it up warmly, and, acting upon the recommendation of Mr. Whitley Stokes, ordered that each of the several subordinate Governments should organize a scheme not only for the preparation of inventories, on a uniform plan, of all manuscripts that may be met with in private collections, but also for the purchasing or the preparation of transcripts of all valuable or rare manuscripts, promising at the same time special grants for the purchase of rare collections, whenever opportunities would offer for so doing. The Government, at the same time, named Dr. Buhler of Bombay, Dr. Kielhorn of Púna, Mr. Burnell of Madras, and the writer of this Review, as persons who, in its opinion, were fit to be entrusted with the management of the undertaking. The amount sanctioned for Bengal was Rs. 3,000 per annum, and the Asiatic Society was asked to superintend its disbursement.

The form recommended by Government was a tabular one, which did not admit of the contents of the manuscript being given at length. The writer of this Review, when requested to undertake the work, pointed out this defect,<sup>1</sup> and, taking into consideration the fact that a work of this kind could be done only once for all, suggested certain modifications, especially with reference to abstracts of contents. His suggestions were approved both by the Society and the Government, but unfortunately his minute was not circulated to other Governments, and the opportunity for securing uniformity was lost.

The inventories prepared for the Society have been named "Notices of Sanskrit Manuscripts," and eighteen fasciculi of these have been published during the last twelve years. The descriptions given are full, and the contents of most of the works have been given in such a way as to obviate the necessity of a future more detailed analysis. In this respect it contrasts very favorably with the lists published in Madras, Bombay and the N. W. Provinces. The model selected was the admirable catalogue of the Bodleian collection prepared by Dr. Aufiecht. A catalogue has also been prepared by the writer of the library of His Highness the Mahá.ájá Bikáni. It extends to 745 pages, and supplies more or less detailed notices of 1 794 manuscripts.

Although Sanskrit manuscripts are not marketable articles, and the sanctity attached to them by the people of this country render them extremely difficult of access, nevertheless, purchases have been made to the extent of 2,507 codices. These are now preserved in the library of the Asiatic Society.

---

<sup>1</sup> Proceedings, May 1869

It has been incidentally noticed (*ante*, p 57), that the Society obtained from 'Government  
'Miscellaneous Works contributions in support of the publication of certain oriental works ; nor were its efforts in this respect limited to works of that description. Scientific works taken in hand in India always found ready support from the Society, both by subscriptions from its own funds as well as by intercession with the Government for special grants. In certain cases the Society, likewise, undertook the task of superintending the printing of literary and scientific works for others. As instances, it may not be amiss here to cite the names of Colonel Dalton's magnificent work on the Ethnology of Bengal, Colonel Mainwaring's Lepcha Grammar and Dictionary, Mr Beal's Biographical Dictionary, and Mr Grierson's Grammar of the Northern Behar dialect. Circumstances also arose from time to time to print works independently of the Journal of the Society. The most important and recent work of this class is Messrs Moore and Hewettson's description of Mr. Atkinson's collection of Indian Lepidoptera, a profusely illustrated quarto volume, which was most welcome to students of Entomology. In 1837, the Society came into possession of the original journals, correspondence, and researches of Messrs Moorcroft and Tiebeck's travels beyond the Himalayas, and immediately placed them in the hands of Messrs Allen & Co., the charge of editing being entrusted to Dr Wilson, then its London agent. The whole edition of the work, however, sold off in a short time, and the Society incurred no expense on account of it. Mr. Hodgson's Essay on 'the Coch, Bodo and Dhimel Tribes,' Mr. Laidley's Travels of Fabian, and some other minor works were also published solely, or mainly, at the expense of the Society. A list of these will be found in Appendix C.

It has been already stated that, during the first twelve years of its career, the Society possessed no income of any kind. Such small contingent expenses as were incurred in carrying on its affairs were defrayed by the President, or by the Secretary, or by both. When the rules regarding quarterly subscriptions were adopted in 1796, the great object was to accumulate a sufficient sum for the building of a house, and for sometime afterwards very little was spent for other purposes. It was not until the establishment of its museum and library that the ordinary expenses of the Society became heavy, and the periodical cost of the *Researches*, which subsequently began to be distributed gratis, swallowed up nearly the whole of its income. Moreover, whatever little savings it had, were lost by the failure of Messrs Palmer and Co., who were the Society's agents till 1828. Difficulties, therefore, arose in 1829, when frequent grants had to be sanctioned for the researches of the Physical Class and for costly illustrations for the *Transactions*. The cost of the Museum was also steadily on the increase. A very timely relief was about this time received by a donation from the King of Oudh of Rs 20,000, supplemented by another of Rs 5,000 from his Prime Minister. This enabled the Society to pay off its debts, and still leave a considerable sum in the hands of its bankers. Unfortunately, however, the failure, in 1833, of Messrs Mackintosh and Co., who had charge of the money, deprived it entirely of its cash balance. In 1834, one Mr. Bruce, who had been long a member of the Society, left a bequest of £2,000, and the amount was invested in Government Securities, from the interest of which it was expected that the cost of the *Researches* would be easily and regularly defrayed, and that publication would



be independent of the ordinary resources of the Society : but the monthly contributions for the Journal and heavy expenses on account of the oriental publications began soon to trench upon this vested fund. In 1836, its amount had been reduced to Rs. 17,500, and a resolution was adopted to pay out of it Rs. 200 a month for a Curator.<sup>1</sup> This called forth a vigorous protest,<sup>2</sup> and as it may be of use for reference in future, it may be well to copy it here:—

“ It appears to us that in a Society constituted as the Asiatic Society of Bengal is, the existence of a fund vested in Government Securities is absolutely necessary for the permanence of the foundation.

“ We consider that such funds are intended to be reserved for cases of extreme emergency, and that the interest only of *such funds* should be carried to the current expenses of the Society.

“ We also consider that any infringement of a law upon which the Society's existence may be said to depend, is injurious not only to the Society itself as a body, but to the interests of the members individually : and may be drawn in as a precedent for further encroachments leading to the ultimate dissolution of the Society.

present difficulties of the Society, of retaining the higher appointment

<i>Northern Doab</i>	}	P. F. CAULLY, <i>Capt, Arty</i>
<i>14th Dec 1836.</i>		H. FALCONER, M.D.
		W. M. DURAND, <i>Lieut, Engrs.</i>
		W. L. BAKER, <i>Lieut, Engrs.</i>
<i>and, Calcutta.</i>	}	ALEXANDER COLVIN, <i>Lieut-Col, Engrs.</i>
<i>26th Jan 1837</i>		JOHN COLVIN "

This led to the stoppage of the Curator's allowance on the following year. But the mischief had already been done, and the lax management of the finances for some years afterwards, and the unnecessarily large establishment entertained, greatly embarrassed the position of the Society, and accumulated a debt, which in 1846 entirely swamped the vested fund. Retrenchments also became urgently necessary. Instead of a European Assistant Secretary on Rs. 200, a Librarian on Rs. 100, an Assistant Librarian on Rs. 40, a Maulvie and a Pandit on Rs. 30 each, and an Accountant on Rs. 60, total Rs. 460, a single native officer as Assistant Secretary and Librarian on Rs. 100 a month was found ample for the requirements of the Society, and the financial affairs of the Society were managed with perfect smoothness for some time after this change. With greatly extended business, it was not possible, however, to establish a vested fund. From 1847 to 1876, the Society lived on its annual income, but saved nothing. In 1858 a resolution was adopted to the effect, that the composition fees received from Life Members should be vested in Government Securities, and only the interest thereof should be devoted to current expenditure. Compositions, however, were few, and the vested fund therefore remained insignificant. The compensation received from Government in 1875 in lieu of the claim the Society had for accommo-



Their names stand on the beadroll of the Society, and as such are deserving of its highest respect

1. The first and foremost name in this beadroll is that of Sir William Jones, born September 1746, died April 27, 1794. To him the Society owes its foundation and the distinction it attained in the earlier days of its career. No less than 29 papers were contributed by him in the first four volumes of the Asiatic Researches, and his translation of *Mamū* has been a standard text-book of reference for lawyers for a hundred years. He, likewise, translated into English the *Sakuntalā* of Kālidāsa, and the *Gītāgo-bindā* of Jayadeva. He was a scholar of world-wide renown, and his memory is dearly cherished by all oriental scholars.

2. Sir John Shore, Bart., afterwards Lord Teignmouth, succeeded Sir William Jones on May 26, 1794, and retired to England on May 2, 1797. He contributed only six papers to the Researches, but it was mainly through his exertions that the Society prospered in its infancy. His name is intimately associated with the foundation of the Society, but he is best remembered by the people of this country as the virtual author of the Permanent Settlement of the land-revenue in Bengal.

3. The name of Henry Thomas Colebrooke, born 1765, died March 18, 1837, comes next. He came to India as a writer in the service of the East India Company, and for a long time held the office of a Judge in the Sadar Dewānī Adālat. He was President of the Asiatic Society for ten years, from April 1806 to February 1, 1815, and contributed nineteen papers to the Transactions of the Society. On his retirement from India, he helped the Society as its London agent until the time of his demise. A great mathematician, zealous astronomer, and profound Sanskrit scholar,

he wrote nothing that did not at once command the highest attention from the public, and, notwithstanding the great advance that has been made in oriental researches of late years, his papers are still looked upon as models of their kind. He was the founder of the Royal Asiatic Society of Great Britain and Ireland, and contributed several valuable papers to its Transactions.

4. Sir Charles Wilkins, Kt, LL D, born 1750, died 1833, came out to India as a writer in the East India Company's Civil Service, and devoted himself to the study of the Sanskrit language. He was the first Englishman who acquired a thorough mastery of it, and in 1779 published a grammar of that language. He, likewise, translated the *Bhagavadgītā*, which was published in 1785 under the auspices of Mr. Warren Hastings. He was the first also to bring his profound learning to bear upon Sanskrit palæography, and to decipher several inscriptions, which were unintelligible to the Pandits of his time. He was a scholar of unexampled perseverance, and his unemitting labors in the climate of Bengal forced him to retire from the Service at the close of the last century. In England he published a translation of the *Hitopadesa* and several extracts from the *Mahābhārata*. On the arrival in England of a large collection of oriental manuscripts, soon after the capture of Seringapatam, the Court of Directors appointed him the custodian of those treasures. He was thus the first Librarian of the India House Library. On the establishment of the College at Hailebury, in 1805, he was appointed a visitor of that Institution in the Oriental Department, and at about that time the University of Oxford conferred on him the honorary degree of Doctor in Civil Law. At a later period King George IV bestowed on him, in recognition of his high literary merits, the honor of

Knighthood,\* accompanying that act of favor with the badge of the Guelphic Order

5 Samuel Davis, Esq., F R S., came out to India as an officer of Engineers in the Bengal Presidency, and accompanied the Embassy to Tibet in 1783, but was soon after admitted to the Civil Service of the East India Company. He joined the Society two months after its foundation, and contributed three papers to its Transactions. He was a mathematician and astronomer, and to him is due the credit of having first identified, by actual observations in the company of Pandits at Benares, the asterisms and many of the stars noticed in Sanskrit works. While employed as District Judge and Governor-General's Agent at Benares, he was deeply engaged in astronomical researches in an observatory which he had erected on the top of his house. Vizier Ali, the deposed Nawáb of Oudh, revolted at this time, and attacked him with a large following of rowdies at the top of the staircase to his observatory. He defended himself for a long time with a pike, which now forms the crest of his family coat-of-arms. He became Chairman of the Court of Directors, and in that capacity wrote the celebrated Fifth Report on the Permanent Settlement. He was subsequently elected a fellow of the Royal Society of London.

6 Colonel Francis Wilford. He was an enthusiastic supporter of the Society. He wrote ten elaborate essays on historical subjects, which created quite a sensation in his time. Unfortunately, however, the Pandits on whom he relied for his quotations from Sanskrit works betrayed him, and his speculations, therefore, were subsequently found to be not very valuable.

7. Reuben Burrow, Esq., writer in the service of the East India Company. He was a distinguished mathema-

pages, as also in the subsequent parts of this Review Suffice it to say that his administration was the most brilliant and successful in the annals of the Society.

11. Rev. W. H. Mill, D D. elected 1833. retired in 1842. He came out in the Ecclesiastical Service of the East India Company, and for a long time held the office of Principal of Bishop's College, Sibpur. His contributions to the Journal were not very numerous, but high encomium is due to his patience, perseverance, and learning in deciphering the inscriptions on the Allahabad column in one of the oldest Indian characters. He was a profound Sanskrit scholar, and universally held in high esteem. To mark their sense of veneration for him, the members of the Society have set up a bust to his honor.

12. Brian Houghton Hodgson. Esq, Bengal Civil Service. born 1799, living. He came out to India in 1819, and spent the greater part of his time in the Himalayas, holding for several years the office of Resident at the Court of Khatmandu, Nepal. He utilized to the utmost the very favourable opportunities he had of carrying on his literary and scientific pursuits in a till then untrodden field, and the service he has done to the cause of science is immense. His contributions to the Society amount to a total of 112 papers, besides large donations in exceedingly valuable manuscripts and specimens of Natural History. On his retirement from the Civil Service in 1843. the Society voted him a bust, and his name is intimately associated with the progress of the Society. Those of his collaborators who are still living cherish for him the kindest affection and respect.

The details given above, meagre as they are, show that the Asiatic Society has, during its  
 Summary career of a hundred years, fully carried

out the objects of its existence To bring the record of its services to a focus :

1 It has provided for the use of scholars a commodious house, valued at Rs. 1,50,000.

2 It has got up a library, containing thirty thousand volumes, of which upwards of eight thousand are manuscripts

3 It has a collection of ancient coins and medals, valued at ten thousand rupees.

4 It has a small but valuable collection of pictures and memorial busts

5. It got up an Archæological and Ethnological Museum of considerable extent, a Geological Museum rich in meteorites and Indian fossils, and a Zoological Museum, all but complete as regards the Avi-fauna of India.

6. It has published a total of 354 volumes, including 21 volumes of the Asiatic Researches and Index, 84 volumes of the Journal and Index, 19 volumes of Proceedings, 167 volumes of Oriental works of different kinds, 31 volumes of miscellaneous works relating to India, 14 volumes of catalogues of various kinds, and 18 volumes of 'Notices of Sanskrit Manuscripts'

These are deeds which, for extent, variety, and usefulness, may well claim the consideration of the public. They compare very favorably with the works of other and older Societies in other parts of the earth To the student of science in India they have proved of incalculable service. And it is in view of these the Society this day celebrates its Centenary Jubilee.





## Appendix A.

*Statement showing the number of Members on the rolls of the Society from  
time to time*

At the close of—				Members	At the close of—				Members
1768	.	...		89	1853	.			146
1790	...	..		101	1854		...		145
1792	..	..		110	1855				162
1795		...		123	1856		.		167
1797		.		151	1857	.			147
1799	..			174	1858				133
1802				197	1859	...			180
1805	.			200	1860				242
1807				204	1861				281
1808	..			215	1862	...			311
1810	.	...		216	1863	.			355
1815	.	..		263	1864	...			360
1820	.			252	1865		.		376
1825	...	.		243	1866		.		387
1828		.		285	1867				416
1832		..		267	1868	.			427
1833	...			258	1869				442
1834	..	..		274	1870	.			414
1835	...	..		306	1871		...		446
1838	..	..		126	1872	.			438
1839	...			125	1873		...		358
1843	...	.		126	1874	.			344
1844	.			125	1875	.			345
1845		.		119	1876		..		347
1846	.	...		136	1877				345
1847	..			219	1878				327
1848	.	..		218	1879				329
1849				207	1880	.			356
1850	..	.		142	1881				350
1851	..			130	1882	...	..		337
1852		.		139	1883		..		323



1805

*President—*

As in 1799

*Vice-Presidents—*

J. H. Harington

H. T. Colebrooke

*Secretary—*

W. Hunter

H. Trailand Palmer & Co, *Treasrs*

1807

*President—*

H. T. Colebrooke

*Vice-Presidents—*

J. H. Harington

Dr. J. Fleming

*Secretary—*

W. Hunter

H. Trailand Palmer & Co, *Treasrs*

1810

*President—*

As in 1807

*Vice-Presidents—*

As in 1807

*Secretary—*

Dr. W. Hunter

Dr. J. Leyden, *Depy Secy*Palmer & Co, *Treasurers*

1815

*President—*

Earl of Moira

*Vice-Presidents—*

J. H. Harington

Sir John Royds

Right Rev. T. F. Middleton

*Secretary—*

Dr. H. H. Wilson

Major J. Weston

W. L. Gibbons, *Depy Secy*Palmer & Co, *Treasurers*

1820

*President—*

Marquis of Hastings

*Vice-Presidents—*

Right Rev. T. F. Middleton

Sir E. Hyde East, Kt

Major-Genl. T. Hardwicke

W. B. Bayley

*Secretary—*

H. H. Wilson (absent)

Capt. A. Lockett (offg.)

Palmer & Co, *Treasurers*

1822

*President—*

As in 1820

*Vice-Presidents—*

As in 1820

*Secretary—*

H. H. Wilson

Palmer & Co, *Treasurers*

1825

*President—*

Hon. J. H. Harington

*Vice-Presidents—*

W. B. Bayley

Rt. Rev. Reginald Heber

*Secretaries—*

H. H. Wilson

Dr. C. Abel, *Phys Com Secy*

1828

*President—*

Sir C. E. Grey

*Vice-Presidents—*

Hon. W. B. Bayley

Hon. Sir J. Franks

Hon. Sir E. Ryan

Hon. Sir C. Metcalfe.



*Secretaries—*

J Prinsep  
 Rev Mr Malan  
 Dr W B O'Shaughnessy.  
 Babu Ramcomul Sen

{ From  
 Oct.  
 1838

1839

*President—*

As in 1832

*Vice-Presidents—*

As in 1838

*Secretaries—*

Dr W B O'Shaughnessy  
 J C C Sutherland

1840

*President—*

As in 1832

*Vice-Presidents—*

Hon Sir J P Grant.  
 Col D McLeod  
 Hon H T Prinsep  
 Hon Sir H Seton

*Secretary—*

H W Torrens

1841

*President—*

As in 1832

*Vice-Presidents—*

Hon Sir J P Grant  
 Hon Sir H Seton  
 Hon H T Prinsep  
 Hon W W Bird,

*Secretary—*

H W Torrens

1842

*President—*

Hon H T Prinsep

*Vice-Presidents—*

Hon Sir J P Grant  
 Hon W W Bird  
 Hon Sir H W Seton  
 Rt Rev Lord Bishop

*Secretary—*

As in 1841

1843

*Presidents—*

Hon H T Prinsep  
 Rt Hon W W Bird (from 30th  
 March)

*Vice-Presidents—*

Rt Rev Lord Bishop  
 Sir J P Grant  
 Sir H W Seton  
 H W Torrens

*Secretaries—*

H W Torrens  
 H. Piddington, *Sub-Secy*

1844

*Presidents—*

W W Bird  
 Hon Sir Henry Hardinge (from  
 October)

*Vice-Presidents—*

As in 1843

*Secretaries—*

As in 1843

1845

*President—*

As at close of 1844

*Vice-Presidents—*

Rt Bev Lord Bishop  
 Sir J P Grant  
 Sir H Seton  
 H W Torrens  
 Lt-Col W N Forbes

*Secretaries—*

As in 1844



*Secretaries—*

Capt F C C Hayes

Dr A Sprenger, elected in place of  
Capt Hayes (retired) in MayIn consequence of changes made in  
the organization of the Council, another  
election was held in June with the  
following results —*President—*

As in 1848

*Vice-Presidents—*

Sir H M Elliot

Dr W B O'Shaughnessy

Welby Jackson

*Secretary—*

Dr A Sprenger.

1852

*President—*

As in 1848

*Vice-Presidents—*

Sir H M Elliot

Dr. W B O'Shaughnessy

Welby Jackson,

*Secretaries—*

Dr A Sprenger

A Grote, elected Jt Secy in  
April

H V Bayley

1853

*President—*

As in 1848.

*Vice-Presidents—*

W B Jackson

J R Colvin

Rungopal Ghose

*Secretaries—*

A Grote Genl

Dr A Sprenger, Phil Dept

1854

*President—*

As in 1848

*Vice-Presidents—*

Hon Col J Low

Sir H M Elliot

Rungopal Ghose.

*Secretaries—*

As in 1853

1855

*President—*

As in 1848

*Vice-Presidents—*

Major-Genl Hon J Low

Lt-Col W E Baker

Rungopal Ghose

*Secretaries—*

A Grote

H V Bayley

W S Atkinson

Mr Grote resigned in July H  
V Bayley and others officiated for  
him and in December Mr W S Atkin-  
son was appointed

1856

*President—*

As in 1848

*Vice-Presidents—*

Rungopal Ghose

Dr G G Spilsbury

A Grote

*Secretary—*

W S Atkinson

1857

*President—*

As in 1848

*Vice-Presidents—*

As in 1856



*Secretaries—*

W S Atkinson.

R Mitra

1858

*President—*

As in 1848

*Vice-Presidents—*

Ramgopal Ghose

A. Grote

Lt -Col R Strachey

*Secretaries—*

W. S. Atkinson

E B. Cowell

1859 and 1860

*President—*

A Grote.

*Vice-Presidents—*

Col R Strachey

Dr. T. Thomson

Babu Ramaprasad Roy

*Secretaries—*

As in 1858

1861

*President—*

As in 1859.

*Vice-Presidents—*

Dr T Thompson

Major H L Thuillier.

Babu Rajendralala Mitra

*Secretaries—*

As in 1858.

1862

*President—*

As in 1859.

*Vice-Presidents—*

Lt -Col H L Thuillier

Babu Rajendralala Mitra

T. Oldham

*Secretaries—*

As in 1858

1863

*President—*

Lt.-Col H L Thuillier.

Do, resigned in April

E C Bayley elected President in September.

*Vice-Presidents—*

A Grote

Lt -Col R Strachey.

Babu Rajendralala Mitra.

E C Bayley, in place of Col Strachey in March

*Secretaries—*

W S Atkinson (resigned in Aug)

E B Cowell (resigned in July)

H F Blanford elected Secy in August

1864

*President—*

E C Bayley

*Vice-Presidents—*

Capt W N Lees

Dr T Anderson

Babu Rajendralala Mitra

*Secretaries—*

H F Blanford

W L Heeley

1865

*President—*

A Grote

*Vice-Presidents—*

Capt W N Lees

W. S. Atkinson

Babu Rajendralala Mitra

In July, Babu Jadava Krishna Singh, in place of R Mitra, resigned.

*Secretaries—*

H F Blanford

W L Heeley

In July, on resignation of the two Secretaries, R Mitra and Dr J Anderson came in

Lt-Col J E Gastrell, *Treasurer*

1866

*President—*

E C Bayley

*Vice-Presidents—*

Dr G B Partridge

Jadava Krishna Singh

W L Heeley

*Secretaries—*H F Blanford, *Genl Secy*R Mitra, *Phil Secy*Dr J Anderson, *Nat Hist Secy*Lt-Col J E Gastrell, *Treasurer*

1867

*President—*

Dr J Fayer

*Vice-Presidents—*

Dr S B Partridge

Hon G Campbell

A Grote

*Secretaries—*H. F Blanford, *Genl Secy*R Mitra, *Phil Secy*Dr J Anderson, *Nat Hist Secy*Lt-Col J E Gastrell, *Treasurer*

In December, Dr Colles was elected Nat. Hist Secy in place of Dr Anderson, resigned

1868

*President—*

Dr T Oldham

*Vice-Presidents—*

Hon J B Phear

A Grote

Kumar Harendra Krishna Bahadur

In July, Mr Grote left for England, and Dr J Fayer was elected V P in his stead

*Secretaries—*H F Blanford, *Gen Secy*R Mitra, *Phil Secy*Dr J A P Colles, *Nat Hist Secy*Col J E Gastrell, *Treasurer*

In May, Mr Blanford resigned, and W H Blochmann was appointed in July In May, Dr F Stoliczka was elected Nat Hist Secy in place of Dr Colles, resigned

1869

*President—*

Dr T Oldham

*Vice-Presidents—*

Dr J Fayer, CSI

Hon J B Phear

Kumar Harendra Krishna Bahadur

*Secretaries—*H Blochmann, *Phil Secy*Dr F Stoliczka, *Nat Hist Secy*Col J E Gastrell, *Treasurer*

In Sept, Col Hyde was elected treasurer in place of Col Gastrell, resigned General duties of Secy carried on by both Nat. Hist and Phil Secretaries

1870

*President—*

Hon J B Phear

*Vice-Presidents—*

Dr T Oldham

Dr J Fayer

R Mitra

*Secretaries—*H Blochmann, *Phil Secy*Dr F Stoliczka *Nat His Secy*Lt-Col H Hyde, *Treasurer*

General duties of Secy carried on  
by Phil and Nat His Secretaries

1871

*President—*

As in 1870

*Vice-Presidents—*

Dr T Oldham

R Mitra

Lord Napier of Magdala

*Secretaries—*H. Blochmann, *Phil Secy*Dr F Stoliczka, *Nat His Secy*Lt-Col H Hyde, *Treasurer*

General duties of Secy carried on  
by Phil and Nat His Secretaries

In Aug, Col J I Tennant suc-  
ceeded Col. Hyde, resigned

1872

1873

*President—*

Dr T Oldham

In April, Col H. Hyde was elected  
President in place of Dr Oldham,  
resigned.

*Vice-Presidents—*

As in 1872

*Secretaries—*Capt J Waterhouse, *Genl Secy*Dr F Stoliczka, *Nat His Secy*H Blochmann, *Phil Secy*Col J E Gastrell, *Treasurer*

In May, Mr J Wood-Mason ap-  
pointed Nat His Secy in place of Dr  
F Stoliczka

1874

*President—*

Col H Hyde

*Vice-Presidents—*

As in 1872

*Secretaries—*

*Secretaries—*Capt J Waterhouse, *Genl Secy*H Blochmann *Phil Secy*J Wood-Mason, *Nat Hist Secy*Col J E Gastrell, *Treasurer*

Dr Lewis officiated as Natural History Secretary for a short time

1876

*President—*

Dr T Oldham

*Vice-Presidents—*

R Mitra

Hon F C Bayley

Col H L Thumler

*Secretaries—*Capt J Waterhouse, *Genl Secy*H Blochmann *Phy Secy*J Wood-Mason, *Nat Hist Secy*Col J E Gastrell, *Treasurer*

Dr Lewis officiated for a short time

On Col Gastrell's resignation Mr H B Medlicott succeeded him in June

1877

*President—*

Hon Sir F C Bayley

*Vice-Presidents—*

Dr R Mitra

Col H L Thumler

W T Blanford

*Secretaries—*Capt J Waterhouse, *Genl Secy*H Blochmann, *Phil Secy*J Wood-Mason, *Phy Secy*H B Medlicott, *Treasurer*

Mr J Wood-Mason resigned in July, Mr W T Blanford and Capt Waterhouse edited Part II of Journal

1878

*President—*

W. T. Blanford

*Vice-Presidents—*

Dr R Mitra

H B Medlicott

T S Isare

*Secretaries—*Capt Waterhouse, *Genl Secy*H Blochmann *Phil Secy*R Lydellher *Nat Hist Secy*L Gay, *Treasurer*

In July, Mr Blochmann died, and Mr C H Fawcay officiated Dr A I R Hoernle was appointed in November. In August Mr Gay resigned, and Mr H Beverley was appointed Treasurer.

Mr Lydellher resigned in March, and Capt Waterhouse and Mr W T Blanford again edited Part II of Journal

1879

*President—*

W T Blanford

In Dec., Mr H B Medlicott succeeded Mr Blanford

*Vice-Presidents—*

Dr R Mitra

H B Medlicott

T S Isare

In Dec., Messrs C H Fawcay and J Westland succeeded Mr H B Medlicott and Mr T S Isare

*Secretaries—*Capt J Waterhouse, *Genl Secy*Dr A F R Hoernle, *Phil Secy*H Beverley, *Treasurer*

Capt J Waterhouse edited Part II of Journal till October, when Mr. J Wood-Mason was appointed Nat Hist Secy

In Dec., Capt Waterhouse resigned, and Mr J Crawford took his place.

1880

*President—*

H B Medlicott



## Appendix C.

*List of Books published, directly or indirectly, by the Asiatic Society of Bengal*

TRANSACTIONS				No of vols
Asiatic Researches, Vols I—XX, 1788—1839 (Vols XVII—XX being in two parts)	4to	...	...	20
Index to Vols I—XVIII of the Asiatic Researches	4to			1
Journal, Vols I—LII, 1832-83 (31 volumes being in two parts)	8vo			83
Index to Vols XIX—XX of the Asiatic Researches and Vols I—XXIII of the Journal	8vo	..	...	1
Proceedings, published separately from the year 1865 to 1883	8vo	...		19
CATALOGUES.				
Catalogue of the Books and Maps in the Library	Edition of 1833			
Edited by Dr Burlingame	8vo	...	...	1
Ditto ditto Edited by Dr Roer	1843 8vo	..	...	1
Ditto ditto Edited by Dr R Mitra.	1856 8vo	...	:	1
Catalogue of the Sanskrit Books and Manuscripts of the Asiatic Society	8vo 1838	...	..	1
A Descriptive Catalogue of Sanskrit Manuscripts in the Library of the Asiatic Society of Bengal Part I Grammar Edited by Dr R Mitra	8vo	.	...	1
Catalogue of Persian, Arabic, and Urdu Manuscripts and Books	8vo	.		1
Ditto of Nepalese Sanskrit Manuscripts, or the Buddhist Sanskrit Literature of Nepal By Dr R Mitra	8vo 1882	.		1
Ditto of the Fossil Remains of Vertebrata from the Sewalik Hills, the Nerbudda, Perim Island, &c, in the Museum of the Asiatic Society of Bengal By H Falconer	8vo 1859			1
Ditto of the Recent Shells in the Museum of the Asiatic Society By W Theobald	8vo 1860	..	..	1
Ditto of the Reptiles in the Asiatic Society's Museum By W Theobald (Extra No, J A S B, 1875)		...	..	1
Ditto of Curiosities in the Museum of the Asiatic Society By Dr R Mitra.	8vo 1849	.	...	1
Ditto of the Birds in the Museum of the Asiatic Society By Ed Blyth	8vo 1849	...	.	1
Ditto of the Mammalia in the Museum of the Asiatic Society By Ed Blyth	8vo 1863	.	..	1
Ditto of Mammals and Birds of Burmah By Ed Blyth (Extra No, J. A S B, 1875)		...	...	1

## MISCELLANEOUS PUBLICATIONS.

	No of vols
General Cunningham's Archaeological Survey Report for 1863-64 (Extra No., J A S B, 1864) . . . . .	1
Sketch of the Turki Language as spoken in Eastern Turkestan Part II—Vocabulary By R B Shaw (Extra No., J A S B, 1878) . . . . .	1
A Grammar and Vocabulary of the Northern Balochi Language By M L Dames (Extra No., J A S B, 1880) . . . . .	1
Introduction to the Maithili Language of North Bihar By G A. Grierson Part—I Grammar (Extra No., J A S B, 1880) Part II—Chrestomathy and Vocabulary (Extra No., J A S B, 1882) . . . . .	2
Vedāntasāra Translated by Dr E Roer 8vo . . . . .	1
Moore and Hewetson's Descriptions of New Indian Lepidoptera Parts I and II 4to . . . . .	2
Lassen's Bactrian Coins Translated by Dr E Roer 8vo . . . . .	1
On the Aborigines of India Essay First, on the Coch, Bodo and Dhumal Tribes By B H Hodgson 8vo . . . . .	1

## ORIENTAL PUBLICATIONS

## SANSKRIT

Saṁsṛuta, a System of Medicine taught by Dhruvantari, and compiled by his pupil, Susruta 8vo . . . . .	2
Naishadha Charita, an Epic Poem by Sri Harsha Part I Edited by Premachānd Tarkavāgīsa 8vo 1835 . . . . .	1
Harivansa, or the History of the Yādava Race A Poem 4to. . . . .	1
Rājataranginī, or History of Kashmir 4to. . . . .	1
Mahābhārata, or a History of the Kurus and the Pāndus By Vyāsa. Vols I—IV. 4to . . . . .	4
Ditto Index. 4to . . . . .	1

## ARABIC

Fatāwe 'Alamgīrī, on Muhammadan Law 4to . . . . .	6
Istilahāt-i-Sūfiyā, or Technical Terms of the Sūfis Edited by Dr A Sprenger 8vo . . . . .	1
Jawāmi 'ul 'ilm ir Rāzī, on Surveying 4to . . . . .	1
Khazānat ul 'ilm 4to . . . . .	1
Sharāyat-ul Islam, Canonical Law of the Muhammadans 4to . . . . .	1
Anis-ul Musharrabīn, on Anatomy Translation of Hooper's <i>Vade mecum</i> 4to. . . . .	1
Inayah, a Commentary on the Hidāya, a work on Muhammadan Law 4to . . . . .	4

## PERSIAN.

Tarikh i Nadiri . . . . .	1
---------------------------	---

## ORIENTAL PUBLICATIONS — (Continued)

No of vols

## BIBLIOTHECA INDICA SERIES \*

*Sanskrit Works, complete*

The first two Lectures of the Śaṅkhya of the Rig Veda	Fasc I—IV.	
Nos 1—4	Edited by Dr E Roer	1
Naishadha Charita by Śrī Harsha, with a Commentary	Part II, Edited by Dr E Roer, Fasc I—XII Nos 39, 40, 42, 45, 46, 52, 67, 72, 87, 90, 120, 124	2
Chaitanya-chandrodaya Nāṭaka, a Drama on the doctrine of Faith	By Kavikarnapura Edited by Dr R Mitra Fasc I—III Nos 47, 48, 80	1
Viśavadattā, a Romance by Subandhu, with its Commentary, Darpaṇa	Edited by Prof F E Hall Fasc I—III Nos 116, 130, 148	1
The Markandeya Purāṇa	Edited by Rev K M Banerjea Fasc I—VII Nos 114, 127, 140, 163, 169, 177, 183	1
Vedānta Sūtras, or Aphorisms of the Vedānta, by Bādarāyaṇa, with the Commentary of Sankara Āchārya and the Gloss of Govindananda	Edited by Pandita Rāmanarāyaṇa Vidyāratna Fasc I—XIII Nos 64, 89, 172, 174, 178, 184, 186, 194, 195, 198, 201	1
The Brhad Āraṇyaka Upaniṣad, with the Commentary of Sankara Āchārya and the Gloss of Ānanda Giri	Edited by Dr E Roer. Fasc I—XI Nos 5—13, 16, 18	2
The Chhāndogya Upaniṣad, with the Commentary of Sankara Āchārya and the Gloss of Ānanda Giri	Edited by Dr E Roer Fasc I—VI Nos 14, 15, 17, 20, 23, 25	1
The Taittirīya, the Aitareya, and the Svetasvatara Upaniṣads, with the Commentary of Sankara Āchārya and the Gloss of Ānanda Giri	Edited by Dr E Roer Fasc I—III Nos 22, 33, 34	1
The Īśa, Kāṇa, Katha, Prasna, Munda, and Māndukya Upaniṣads, with the Commentary of Sankara Āchārya and the Gloss of Ānanda Giri	Edited by Dr E Roer Fasc. I—VI Nos 24, 26, 28, 29, 30, 31	1
Division of the Categories of the Nyaya Philosophy, with a Commentary by Viśvanatha Paṇchanana	Edited and translated by Dr E. Roer Fasc I—II. Nos 32, 35	1
The Śhīṭya Darpaṇa, or Mirror of Composition	By Viśvanatha Kivirāja. Edited by Dr E Roer Fasc I—V. Nos 36, 37, 53, 54, 55	1
The Lalita Vistara, or Memoirs of the Early Life of Śākya Sūta	Edited by Dr R. Mitra Fasc I—VI Nos 51, 73, 143, 144, 145, 237	1
Sarvādarsana Saṅgraha, or an Epitome of the Different Systems of Indian Philosophy	By Madhavachārya Edited by Pandita Īśvarachandra Vidyāśāgara Fasc I—II Nos 63, 142	1



	No of vols
The Sūrya-Siddhānta, an Ancient System of Hindu Astronomy, with Ranganātha's Exposition, the Gūḍhārtha-Prakāśaka Edited by Prof F E Hall, with the assistance of Pandit Bāpū Deva Sāstrin. Fasc I—IV Nos 79, 105, 115, 146 .. .. .	1
The Sāṅkhya-pravachana-bhāṣya, a Commentary on the Aphorisms of the Hindu Atheistic Philosophy By Vyāna Bhikṣu Edited by Prof F E Hall Fasc I—III. Nos 94, 97, 141 .. .. .	1
Purāṇa Sangraha, Part I, Text and Translation of the Mārkaṇḍeya Purāṇa (discontinued) .. .. .	1
The Vaiśeṣika Darśana, with the Commentaries of Sāṅkara Mīśra and of Jayanārāyaṇa Tarkapañchanana Edited by Pandita Jayanārāyaṇa Tarkapañchanana Fasc I—V Nos 4—6, 8, 10 .. .. .	1
The Aphorisms of Sāṅkara, with the Commentary of Svapneshvara Edited by Dr J R Ballantyne Fasc I No 11 .. .. .	1
The Dasarūpa, or Hindu Canons of Dramaturgy, by Dhanañjaya, with the Expositions of Dhanika, the Avaloka Edited by Prof F. E. Hall Fasc I—III Nos 12, 24, 82 .. .. .	1
The Nārada Pañcharātra Edited by Rev K. M. Banerjee. Fasc I—IV. Nos 17, 25, 34, 75 .. .. .	1
The Kaushītaki-Brahmaṇa-Upanishad, with the Commentary of Sankarānanda Edited, with an English Translation, by Prof E B Cowell Fasc I—III. Nos 19-20 (3rd fasc has no number) .. .. .	1
The Kāvya-darśa of Śrī Dandin, with a Commentary Edited by Pandita Premachandra Tarkavagīṣa Fasc I—V Nos 30, 33, 38, 39, 41 .. .. .	1
The Muṭi, or Muṭrayana Upanishad, with the Commentary of Ramatirtha Edited, with an English Translation, by Prof E B Cowell Fasc I—III Nos 35, 40 (3rd fasc has no number) .. .. .	1
The Sankara-vijaya, or the Life and Polemics of Sankara Ācharya by Ananda Giri Edited by Prof Jayanārāyaṇa Tarkapañchanana Fasc I—III Nos 46, 137, 138 .. .. .	1
The Brihat Smṛitā of Varaha-Mihira Edited by Dr. H Kern. Fasc I—VII Nos 51, 54, 59, 63, 68, 72, 73 .. .. .	1
The Srūta Sūtra of Asvalāyana, with the Commentary of Gargya Nārāyaṇa Edited by Ramanārāyaṇa Vidyaratna Fasc I—XI Nos 55, 61, 66, 69, 71, 80, 84, 86, 90, 93, 299 .. .. .	2
The Nyāya Darśana, with the Commentary of Vatsyāyana. Edited by Pandita Jayanārāyaṇa Tarkapañchanana. Fasc. I—III Nos 56, 67, 70 .. .. .	1
The Taittirīya Āraṇyaka of the Black Yajur Veda, with the Commentary of Sayana Ācharya Edited by Dr R Mitra Fasc I—XI. Nos 60, 74, 88, 97, 130, 144, 159, 169, 203, 226, 265 .. .. .	1

No of vols. . .

ya-Sara, a Treatise of Sāṅkhya Philosophy By Viṇāna Bhikṣu dited by Prof F E Hall Fasc I No 83	..	1
rihya Sūtra of Asvalāyana, with the Commentary of Gāryga Nārā- ma Edited by Ramanārāyaṇa Vidyaratna and Anandachandra edantavagīsa Fasc I—IV Nos 102, 132, 143, 164	..	1
andya Mahabrahmana, with the Commentary of Sayana Āchārya dited by Ānandachandra Vedantavagīsa Fasc I—XIX. Nos 170, 15, 177, 179, 182, 188, 190, 191, 199, 206, 207, 212, 217, 219, 221, 25, 254, 256, 268 ... ..	..	2
rauta Sūtra of Lātyāyana, with the Commentary of Agnisvami dited by Ānandachandra Vedantavagīsa Fasc I—IX Nos 181, 4, 185, 187, 196, 198, 202, 213, 260 ... ..	..	1
hopala Tapanī of the Atharva Veda, with the Commentary of śvesvara Edited by Harachandra Vidyābhushana and Visvanatha strī Fasc I No 183 ... ..	..	1
ūrana, a Collection of Hindu Mythology and Traditions Edited Dr R Mitra. Fasc I—XIV. Nos 189, 197, 201, 291, 306, 313, 316, 357, 373, 390, 399, 404, 421 ...	..	3
partha Brāhmana of the Atharva Veda Edited by Dr R Mitra Harachandra Vidyābhushana Fasc I—II Nos 215, 252	..	1
risinba Tapinī of the Atharva Veda, with the Commentary of akara Ācharya Edited by Prof Ramamaya Tarkaratna Fasc III Nos 216, 223, 238 .. .	..	1
ma Veda Saubhitā, with the Commentary of Sayana Āchārya Edited Satyavrata Samasramī Vol I Nos 1—10, Vol II, Nos 1—6, III, Nos 1—7; Vol IV, Nos 1—6, Vol V, Nos 1—8 (37 Fasc ) 218, 224, 235, 244, 251, 270, 280, 285, 286, 293, 301, 321—324, 339, 340, 342, 347, 348, 351, 355, 356, 361, 365, 366, 369, 371, 382, 385, 389, 398, 402, 413, 414 . ..	..	5
ulīya Grihya Sūtra, with a Commentary Edited by Chandra- Tarkalankara Fasc. I—XII Nos 229, 241, 246, 277, 300, 383, 415, 416, 423, 425, 448 .. ...	..	1
Sūtra of Pingala Āchārya, with the Commentary of Halāyudha ed by Pandita Visvanātha Śāstrī Fasc I—III. Nos 230, 258, .. ..	..	1
arīya Prātisakhya, with the Commentary entitled the Tribhā- atna Edited by Dr R. Mitra. Fasc I—III Nos 234, 59 .. ...	..	1
vana Upanishads, with the Commentary of Nārāyaṇa Edited of Rāmamaya Tarkaratna Fasc I—V Nos 249, 265, 276, 05 (Publication discontinued) .. ..	..	1

	No of vols.
The Āitareya Aranyaka, with the Commentary of Sāyana Āchārya Edited by Dr. R Mitra Fasc I—V. Nos 325, 329, 335, 337, 345 ...	1
Bhāmati, a Gloss on Sankara Āchārya's Commentary on the Brahma Sūtras, by Vāchaspati Misra. Edited by Pandita Bāla Sāstrī. Fasc. I—VIII. Nos 328 336, 343, 364, 384, 405, 427, 433 ...	1
The Institutes of Vishnu, together with Extracts from the Sanskrit Commentary of Nanda Pandita, called Vajayantī Edited, with Critical Notes, an Anukramanikā, and Indexes of Words and Mantras, by Prof J Jolly Fasc I—II. Nos 458, 463 ..	1
The Yoga Aphorisms of Patanjali, with the Commentary of Bhoja Rājā and an English Translation Edited and Translated by Dr. R. Mitra. Fasc. I—V. Nos 462, 478, 482, 491, 492 ...	1
<i>Sanskrit Works, in progress</i>	
The Elements of Polity by Kamandakī, with a Commentary. Edited by Dr. R. Mitra and Jaganmohan Tarkālankara. Fasc I—IV. Nos 19, 179, 206; and new series 338 ... ..	1
The Taittirīya Brāhmaṇa of the Black Yajur Veda, with the Commentary of Sāyana Āchārya. Edited by Dr R Mitra Fasc I—XXIV. Nos 125, 126, 147, 150—155, 175, 176, 188—192, 196, 197, 204, 210, 216, 220, 222, 223 .. ...	3
The Śukhītā of the Black Yajur Veda, with the Commentary of Mādhava Āchārya. Edited by Dr E Roer, Prof. E B Cowell, and Mahesachandra Nyāyaratna Fasc I—XXXII. Nos. (O S) 92, 117, 119, 122, 131, 133, 134, 137, 149, 157, 160, 161, 166, 171, 180, 185, 193, 202, 203, 218, 219, 221, 224, 228, 231, 233, 236, 239, 241; and (N S) 466	5
The Aphorisms of the Mīmāṃsā by Jaimini, with the Commentary of Savara-Svāmī. Edited by Pandit Mahesachandra Nyāyaratna Fasc I—XVI. Nos (N S.) 44, 85, 95, 101, 115, 142, 154, 174, 208, 209, 240, 315, 368, 388, 436, 470 ... ..	2
Chaturvarga-chintamani by Hemādri. Edited by Panditās Bharatachandra Siromani, Yjnesvar Bhattāchārya, and Kamākhyānātha Tarkaratna Vol I, Nos 1—11, Vol II, part i, Nos 1—13; part ii, Nos 1—12; Vol III, Nos 1—6 (42 Fasc) Nos (N S) 228, 237, 242, 245, 257, 262, 267, 274, 278, 281, 290, 326, 327, 331, 341, 344, 354, 360, 367, 372, 377, 381, 386, 391, 400, 401, 406, 506, 407, 410, 417—419, 422, 426, 429, 464, 475, 481, 486, 493, 495 . . .	4
Prithirāja Rasau of Chand Bardai. Edited in the original old Hindī by John Beames and Dr A F Rudolf Hoernle Part I, Fasc 1; Part II, Fasc 1—4, (5 Fasc), Nos (N S) 269, 304, 408, 430, 489 ...	1
Kātantra, with the Commentary of Durgasimha. Edited, with Notes and Indexes by Prof Julius Eggeling. Fasc I—VI Nos (N S) 297, 298, 303, 309, 396, 397 ... ..	1

	No of vols.
The Vāyu Pūrāṇa, a System of Hindu Mythology and Tradition Edited by Dr R Mitra Vol I, Fasc 1—6, Vol II, Fasc 1—4, (10 Fasc) Nos (N S) 400, 424, 428, 434, 437, 445, 457, 476, 488, 499	2
The Nirukta, with Commentaries Edited by Pandit Satyavrata Śīma-srami Fasc I—VII Nos (N S) 449, 454, 460, 471, 477, 480, 494	2
The Śrauta Sūtra of Āpastamba, belonging to the Taittirīya Saṁhitā, with the Commentary of Rudradatta Edited by Dr Richard Garbe Fasc I—VII Nos. (N S) 461, 469, 474, 479, 483 .. ...	3
Parāśara Smṛiti Edited by Pandit Chandrakānta Tāṭkālankāra Fasc I No (N S) 487 .. .	1
Sthavānāvalcchārta, or Parisishtaparvan, being an Appendix of the Tri- shashti-sutaka-purusha-charita By Hemachandra Edited by Dr Hermann Jacobi Fasc I No (N S) 497 .. ..	1

*Arabic Works, complete.*

Arabic Bibliography. Edited by Dr A Sprenger Fasc I No (O S) 21	1
Soyūṭy's Itqān, on the Exegetic Sciences of the Qorān Edited by Mow- lavy Sadeedood deen Khān, Busheerood-deen, and Dr. A Spren- ger Fasc I—X Nos (O S) 44, 49, 57, 68, 70, 74, 77, 81, 99, 104	1
Fotooh-al-Sham being an account of the Moslem Conquest in Syria By Aboo Ismā'īl, Mohammad bin 'Abd Alla, Al-Azdi, Al-Baḡrī Edited by Ensign W N Lees Fasc I—IV. Nos (O S) 56, 62, 84, 85 ..	1
Tusy's List of Shy'ah Books and 'Alam Alhodā's Notes on Shy'ah Biography. Edited by Dr A Sprenger, Mawlavy 'Abd Al-Haqq and Mawlavy Gholam Qadir Fasc I—IV Nos (O S) 60, 71, 91, 107 (Publica- tion discontinued) .. ...	1
A Dictionary of the Technical Terms used in the Sciences of the Musal- mans Edited by Mawlavy Mohammad Wajih, Abd Al-Haqq, and Gholam Kadir, under the superintendence of Dr Aloys Sprenger and Capt W Nassau Lees Fasc I—XX Nos (O S) 58, 65, 82, 88, 95, 100, 108, 109, 118, 129, 132, 156, 158, 159, 162, 165, 167, 170, 173, 183 4to .. ...	2
Shamsiyyā, First Appendix to the Dictionary of the Technical Terms used in the Sciences of the Mussalmans, containing the Logic of the Arabians in the original Arabic With an English translation Edited and translated by Dr A Sprenger Fasc I No (O S) 88 4to ..	1
The Conquest of Syria, commonly ascribed to Aboo 'Abd Allah Moham- mad B 'Oma, Al-Waqidi. Edited by W Nassau Lees Fasc I—IX. Nos (O S) 59, 66, 96, 98, 102, 103, 164, 167, 187 .. ...	2
History of Mohammad's Campaigns, by Aboo 'Abd Ollah Mohammad 'Bin Omar Alwākidy Edited by Alfred von Kremer Fasc I—V Nos 110, 112, 113, 121, 139 .. ...	1

## Appendix C.

[PART I.]

The Nokhbat Al-Fikr and Nozhat Al-Nazr By Shahat Al-Din Ahmad  
 Ibn Hajar Al-'Asqalani Edited by Capt W Nassau Lees and Maw-  
 lavies Abd-Al-Ilqq and Gholam Qadir Fasc I No (N S) 37 1

*Arabic Works, in progress*  
 Iqbal a Biographical Dictionary of Persons who knew Mohammad, by  
 Ibn Hajar Edited by Mawlavies Mohammad Wajih, 'Abd-al-Ilqq,  
 and Gholam Qadir, Dr A Sprenger, Capt W N Lees and Mawlavi  
 Abd ul-Ilui Vol I, Nos 1—12, Vol II, Nos 1—7, Vol III, Nos  
 1—5, Vol IV, Nos 1—10, with supplement (in all 35 Fasc) Nos  
 (O S) 61, 69, 75, 83, 86, 93, 101, 106, 111, 123, 128, 136, 138, 205,  
 207, 208, 209, 211, 214, 215, 225, 226, 227, 232, 234, 235, 238, 240,  
 242, 248 ... .. 3

*Persian Works, complete*  
 Khirad-námah-i Iskandari, also called the Sikandar-námah-i Bahri By  
 Nitzámy Edited by Dr A Sprenger, Aghá Mohammed Shoostari  
 and Mawlavi Agha Ahmad 'Ali Fasc I—II Nos (O S) 43, (N S) 1  
 171 (Publication discontinued)

Tárikh-i Feroz-Sháhi of Zina al-Din Barni, commonly called Zina-i Barni  
 Edited by Sayid Ahmad Khán, under the superintendence of Capt.  
 W. Nassau Lees and Mawlavi Kabir-al-din. Fasc. I—VII Nos  
 (N S) 2, 3, 7, 9, 14, 15, 23 ... .. 1  
 Tárikh-i Baháki, containing the Life of Massúd, son of Sultán Mahmúd  
 of Ghazni, being the 7th, 8th, and 9th parts of the 6th and 10th  
 volumes of the Tárikh-i al-i Suboktageen By Abu'l Fazl Al-Baihaqi.  
 Edited by the late W H Morley, and printed under the supervision of  
 Capt. W Nassau Lees Fasc I—IX. Nos (N S) 16, 18, 21, 22, 26,  
 27, 29, 31, 36 ... .. 1

Tabaqát-i Nasri of Aboo 'Omar Minháj Al-din 'Othmán, Ibn Siráj al-din  
 al-Jawzjani Edited by Capt W Nassau Lees and Mawlavis Kha-  
 dim Hosain and 'Abd Al-Hai Fasc I—V. Nos. (N S) 42, 43, 45,  
 47, 50 ... .. 1  
 Muntakhat al-Tawárikh of Abd al-Qádir Bin-i-Malúk Sháh al-Badhoni  
 Edited by Capt W N Lees and Mawlavi Ahmad 'Ali Fasc I—XV  
 Nos (N.S) 57, 58, 62, 64, 65, 131, 135, 136, 139, 140, 145, 146, 152,  
 153, 161 ... .. 3

Iqbálnámah-i Jahángirí of Motamad Khán Edited by Mawlavis Abd  
 al-Hai and Ahmad Ali, under the superintendence of Major W N  
 Lees Fasc I—III Nos (N S) 77, 79 ... .. 1  
 Álamgirnámah By Muhammad Kázim Ibn-i-Muhammad Amin Munshi  
 Edited by Mawlavis Khádím Husain and Abd al-Hai, under the  
 superintendence of Major W N Lees Fasc I—XIII. Nos (N.S)  
 87, 89, 91, 92, 94, 98, 99, 103, 104, 106, 109, 134, 288

No of vols

- Wis o Rīmān : a Romance of Ancient Persia Translated from the Pahlavi and rendered into verse by Fakhr Al-din, As'ad al-Astarābādī, Al-Fakhrī, Al Gurgānī Edited by Capt W N Lees and Munshi Ahmed Ali Fasc I—V Nos (N S) 48, 49, 52, 53, 76 . . 1
- The Badshāhnāmāh By 'Abd Al-Hamūd Līlawrī Edited by Maulawī Kabīr al-Dīn Ahmad and Abd al-Rāḥim, under the superintendence of Major W N Lees Fasc I—XIX Nos (N S) 96, 100, 105, 107, 108, 110, 111, 114, 116 118, 121, 125—129, 133 2
- Index of Names of Persons and Geographical Names occurring in the above By Maulavī Abdur Rahim Fasc I No (N S) 261 . 1
- The Āīn-i-Akbarī By Abul Fazl-i-'Allāmī Edited by Prof H Blochmann Fasc I—XXII Nos (N S) 112, 113, 119, 120, 122, 141, 157, 162, 168, 176, 193, 211, 236, 248, 264, 275, 314, 349, 350, 370, 378, 387 4to 2
- The Muntakhabat Al-Lubāb of Khafī Khan Edited by Maulavī Kabīr al-Dīn Ahmad Fasc I—XIX Nos (N S) 147, 148, 150, 151, 155, 156, 160, 165—167, 172, 173, 178, 180, 186, 192, 204, 205, 292 2
- The Maasir-i-'Ālamgiri of Muḥammad Saqī Mustafīd Khān Edited by Maulavī Āghā Ahmad 'Alī Fasc I—VI Nos (N S) 195, 210, 220, 232, 233, 289 ... 1
- The Farhang-i-Rashīdī A Persian Dictionary By Sayyid 'Abdurrahīm of Tattālī Edited by Maulavī Zulfagīr Alī Fasc I—XIV Nos (N S) 200, 222, 231, 239, 243, 250, 255, 266, 271, 279, 302, 303, 317, 318 4to . 2
- The Haft Āsmīn, or History of the Masnawī of the Persians By the late Maulavī Āghā Ahmad 'Alī Printed with a Biographical Notice of the Author by Prof H Blochmann Fasc I No (N S) 294 ... 1

*Persian Work, in progress*

- The Akbarnāmāh By Abul Fazl i Muḥarrak i 'Allāmī Edited by Maulavī 'Abd-ur-Rahim Vol I, Nos 1—8, Vol II, Nos 1—6 (double Nos), Vol III, Nos 1—4 (20 Fasc), Nos 283, 284, 319, 320, 352, 353, 362, 363, 374, 375, 379, 380, 411, 412, 431, 432, 467, 468, 484, 485 4to . . . . . 3

*Translations into English, complete*

- The Taittirīya, Aitaiśya, Svetasvatara, Kena, Isa, Katha, Prasna, Mundaka and Māndukya Upanishads Translated by Dr E Roer Fasc I—II Nos (O S) 41 50 . . 1
- The Brihad Āranyaka Upanishad, and the Commentary of Sankara Ācharya on its first chapter Translated by Dr E Roer Fasc I—III Nos (O S) 27, 38, 135 1

	No of vol-
The Chhândogya Upanishad of the Sâma Veda, with Extracts from the Commentary of Sankara Âchârya Translated by Dr R Mitra Fasc I—II Nos (O S) 78, 181 ... ..	1
The Sâhitya-Darpana, or Mirror of Composition a Treatise on Literary Criticism by Viswanâtha Kaviraja Translated by Pramadadâsa Mitra Fasc I—IV Nos (O S) 212, 213, 217 ; (N S) 330 .. ..	1
Sûrya Siddhânta. Translated by Pandit Bapu Deva Sastri. Fasc I No (N S) 1 .. .	1
Siddhânta Siromani Translated by the late Lancelot Wilkinson Revised by Pandit Bapû Deva Sâstri Fasc I—II Nos (N S) 13, 28 .. ..	1
The Sankhya Aphorisms of Kapila, with Extracts from Vijnâna Bhiksu's Commentary Translated by Dr J. R. Ballantyne Fasc I—II Nos (N S) 32, 81 ... ..	1
Kâchehayano's Pâli Grammar Translated and arranged on European models; with Chrestomathy and Vocabulary. By Dr. Francis Mason Fasc I—II. Nos (N S) 123, 124 ... ..	1
The Âin-i-Akbari By Abul Fazl 'Allami Translated by Prof H Blochmann Fasc I—VII Nos (N S) 149, 158, 163, 194, 227, 247, 287 .. ..	1
The Brahma Sûtras, with the Commentary of Sankarachârya Translated by Rev K M Banerjee Fasc. I. No (N S) 214 (Publication discontinued) .. ..	1
The Aphorisms of Sandilya, with the Commentary of Svapnesvara, or the Hindu Doctrine of Faith. Translated by Prof E. B. Cowell. Fasc I No (N S) 409 ... ..	1
History of the Caliphs. By Jalâlu'ddin A's Suyûti Translated by Major H S. Jarrett. Fasc I—VI Nos (N S) 440, 441, 443, 446, 451, 453 .. ..	1
Translations of the following works have also been made, and have been published with the texts They will be found entered in the Lists of Sanskrit and Arabic works, completed	
Division of the Categories of the Nyâya Philosophy.	
The Maitri or Maitrayaniya Upanishad.	
The Kaushîtaki-Brâhmana-Upanishad.	
The Yoga Aphorisms of Patanjali	
First Appendix to the Dictionary of the technical terms used in the Sciences of the Mussalmans	
<i>Translations into English, in progress</i>	
Tablât-i-Nâiri: A General History of the Muhammadan Dynasties of Asia, including Hindustan, from A H 194 (810 A D) to A H 658 (1260 A D), Vol I and the Irruption of the Infidel Mughal into Islam By the Maulânâ, Minhaj-ud-din, Abu-'Umar-i-'U'min Translated by Major H G Raverty. Fasc I—XIV. Nos (N S) 272, 273, 297, 296, 310, 311, 332, 333, 358, 359, 392—395 ... ..	

	No of vols
The Katha Sarit Sagara, or Ocean of the Streams of Story Translated by C H Tawney Vol I Nos 1—8, Vol II Nos 1—2, (10 Fasc), Nos (N S) 436, 438, 439, 442, 444, 450, 456, 459, 465, 472	2
The Prithuraj Rāsu of Chand Bardai Translated by Dr A P Rudolf Hoernle Part II Fasc I No (N S) 452	1
The Lalita-Vistara, or Memoirs of the Early Life of Sakya Sinha Translated by Dr R Mitra Fasc I—II Nos (N S) 455, 473	1
The Susruta-Samhita the Hindu System of Medicine according to Susruta Translated by Dr Uday Chandra Dutt Fasc I No (N S) 490	1

*Miscellaneous*

The Prithuraj Rāsu of Chand Bardai Edited in the original old Hindi by John Beames and Dr A P Rudolf Hoernle Part I Fasc I, Part II Fasc I—V (5 Fasc) Nos (N S) 269, 304, 408, 450, 489	1
The Prakrit-Lal Shamam, or Chandra's Grammar of the Ancient (Arsha) Pkrit Edited by Dr A P Rudolf Hoernle Fasc I No (N S) 447.	1

PUBLISHED WITH THE AID, OR UNDER THE SUPERVISION,  
OF THE SOCIETY

The Ramayana of Valmiki Edited and translated by Drs W Carey and J Marshman 4to	3
Tibetan Grammar By Alexander Csoma de Koros 4to	1
Tibetan Dictionary By ditto ...	1
The Alf Leilaten-o-Leilaf, or the Arabian Nights in the original Arabic Edited by J Brownlow 4to	4
The Shāhnámah, in Persian Edited by W H Macnaghten Fol	2
Dictionarium Anamittico-Latinum By A J L Tabara	1
Kavya Sangraha A Selection of small poems in Sanskrit Edited by Dr A Hæberlin ...	1
Notices of Sanskrit Manuscripts Compiled by Dr R Mitra 8vo Fasc I—XVII ...	18
Beales Oriental Biographical Dictionary Edited by H G Keene 4to	1
Travels in the Himalayan Provinces By Moorcroft and Trebeck 8vo ..	2
Grammar of the Burmese Language By Captain Latter 4to	1
Travels of Fahian By J W Laidlay 8vo	1
Ethnology of Bengal By Colonel Dalton 4to	1
Catalogue of Sanskrit Manuscripts in the Library of H H the Maharaja of Bikaner By Dr R Mitra 8vo	1
A Grammar of the Lepcha Language By Major Mainwaring 4to	1



## Appendix D.

*Index to the Papers and Contributions to the Asiatick Researches  
and the Journal and Proceedings of the Asiatic Society of  
Bengal.*

NB—The Papers are indexed under the Authors' Names    Anonymous  
Contributions are indexed under the Leading Word in the Title

Abbey, W —On Ethnology of Mergui  
[*Proc* 1866, 243]

Abbott, Colonel James —Public  
Papers relating to the Nurma or  
Chanderi Cotton in reference to  
queries by Mr Piddington, *Journal*  
*Asiatic Society*, Vol X, p 716  
[*Jl* xi, 1188]

An Account of a Remarkable Aero-  
lite, which fell at the village of  
Manogaon, near Eidulabad, in  
Khandeesh [ *Jl* xiii, 880 ]

On Kunker Formations, with speci-  
mens [ *Jl* xiv, 442 ]

Account of certain Agate Splinters  
found in the clay stratum bordering  
the River Narbudda [ *Jl* xiv, 756 ]

Remarks upon the Occurrence of  
Granite in the bed of the Nar-  
budda. [ *Jl* xiv, 821 ]

Account of the Process employed for  
obtaining Gold from the Sand of  
the River Beyass, with a short  
Account of the Gold Mines of Si-  
beria [ *Jl* xvi, 266 ]

Process of Working the Damascus  
Blade of Goojrat [ *Jl* xvi, 417 ]

On a Sculpture from the Site of the  
Indo-Greek City of Bucephalia  
[ *Jl* xvi, 664 ]

Additional Observations on the Da-  
mask Blade of Goojrat  
[ *Jl*, xvi, 666 ]

Abbott, Colonel James (*contd*)—  
Extracts from a letter descriptive of  
Geological and Mineralogical Ob-  
servations in the Huzaree district,  
dated Camp Puhli, in Huzaree, 19th  
June, 1847 [ *Jl* xvi, 1195 ]  
Inundation of the Indus, taken from  
the lips of an eye-witness (Ushruff  
Khan), A D 1842

[ *Jl* xvii pt 1, 230 ]  
On the Manufacture of the Match-  
lock of Koteli [ *Jl* xvii, pt. 1, 277 ]

Some Account of the Battlefield of  
Alexander and Porus

[ *Jl* xvii, pt ii 619. ]  
Remains of Greek Sculpture in Poto-  
war. [ *Jl* xviii, 131 ]

Addendum on the Battlefield of  
Alexander and Porus [ *Jl* xviii, 176 ]

List of the Rajahs of Sialkote  
[ *Jl* xviii, 177 ]

On the Sites of Nikala and Bouke-  
phalon [ *Jl* xxi, 214 ]

Note on the Ruins at Maunkyalah.  
[ *Jl* xxii, 570 ]

On the Ballads and Legends of the  
Punjab [ *Jl* xxiii, 50 ]

On the Ballads and Legends of the  
Punjab Rifacimento of the Le-  
gend of Russaloo [ *Jl* xxiii, 123 ]

On the Mirage of India [ *Jl* xxiii, 163. ]

Gradus ad Aornos. [ *Jl* xxiii, 309 ]

Aornos [ *Jl* xxxiii, 409 ]

Memorandum on the Elephant Sta-  
tues in the Delhi Palace

[ *Jl*, xxxiii, 375. ]

- Abdullatif, Maulvi — On the Pan-  
thay. [Proc 1868, 112]
- Abdun Nubee Hajee — Notes taken  
on a Tour through parts of  
Baloochistan in 1858 and 1859  
Arranged and translated by Major  
Robert Leech. [Jl xiii, 667, 786]
- Abel Dr Clarke — Some Account of  
an Orang Outang of remarkable  
height found on the Island of Su-  
matra together with a description  
of certain remains of this Animal  
presented to the Asiatic Society by  
Capt Cornfoot and at present con-  
tained in its Museum. [As Res xv, 489]
- Aborigines of the Eastern Ghats. [Jl xxx, 39]
- Adam Dr J — Account of Barron  
Island in the Bay of Bengal. [Jl i, 128]
- Memoranda on the Geology of Bun-  
deleund and Jubulpore. [Jl xi, 592]
- Aerolite, on an, presented to the  
Society. [Jl xiii, 822]
- Agha Abbas — Journal of a Tour  
through parts of the Punjab and  
Afghanistan in the year 1857  
Arranged and translated by Major  
R Leech by whom the tour was  
planned and instructions furnished. [Jl xii, 564]
- Aitchison, Dr J E Tierney — On  
the Vegetation of the Jhelum Dis-  
trict of the Punjab. [Jl xxxiii, 290]
- Lagotis rufescens* sent by. [Proc 1880, 173]
- Alabaster, C — Memorandum on Edu-  
cation in China drawn up from  
information afforded by the ex-  
Imperial Commissioner Yeh. [Jl xxviii, 48]
- Aleem-ulla, Mulla — Account (Part II)  
of parts of the Cabul and Peshawar  
Territories and of Samah, Sudoom,  
Bunher, Swah, Deer and Bajour  
visited by Mulla Aleem-ulla of  
Peshawar in the latter part of  
the year 1857 Arranged and trans-  
lated by Major R Leech, C B. late  
Political Agent Candahar, under  
whose instructions the tour was  
made. [Jl xiv, 660]
- Alexander, James — On the Tenures  
and Fiscal Relations of the Owners  
and Occupants of the soil in Ben-  
gal, Behar and Orissa. [Jl xiv, 527]
- Ali Ibrahim Khan — On the Trial by  
Ordeal among the Hindus. [As Res i, 389]
- Allahabad, Population of the City and  
District of. [Jl iii, 244]
- Allan, Lieut-Col A S — Notes on  
Father Tiffenthaler. [Proc 1872, 69]
- Amery — On Origin of Races. [Proc 1867, 111]
- Anderson, Andrew — On a new spe-  
cies of Kite and Notes on the genus  
*Melospiza* generally With a Note by  
W L Brool's. [Proc 1873, 242]
- Anderson, Capt — On Andamanese. [Proc 1867, 157]
- Anderson, Dr J — On Ethnological  
Exhibition. [Proc 1866, 83]
- On a new species of *Phaenodus*. [Proc 1869, 265]
- On a new species of *Scimus*. [Proc 1871, 115]
- On two Saurian genera *Iurylepis* and  
*Pleocoderm*. [Proc 1871, 180]
- A List of the Reptilian Accessions to  
the Indian Museum Calcutta from  
1865 to 1870 with a description of  
some new species. [Jl xli pt ii, 12]
- Remarks on Rude Stone Monuments  
in Chutia Nagpur. [Proc 1873, 132]
- Exhibition of a living Bamboo Rat,  
with remarks and description. [Proc 1877, 148]
- On the Floral Simulation of *Gongy-  
lus gonylestes*, Linn. [Proc 1877, 193]
- Description of some new and little  
known Asiatic Shrews in the In-  
dian Museum, Calcutta. [Jl xli pt ii, 261]
- On the Indian Species of the genus  
*Trinacrus*. [Jl xli pt ii, 195]
- On *Arvicola indica*, Gray and its re-  
lations to the sub genus *Nesolia*,  
with a description of the species of  
*Nesolia*. [Jl xli pt ii, 214]
- See Blyth, E
- Anderson, Dr Thomas — Notes on  
the Indian Species of *Lycium*. [Jl xxvii, 52]
- Notes on the Flora of Lucknow with  
Catalogues of the cultivated and  
indigenous Plants. [Jl xxviii, 89]
- On the Flora of Behar and the moun-  
tain Parasnath, with a list of the  
species collected by Messrs Hooker,  
Edgeworth, Thomson and Anderson. [Jl xxxii, 189]
- Anderson, Major William — An  
attempt to identify some of the  
places mentioned in the Itinerary  
of Hiuen Thsang. [Jl xvi, 1183]
- Notes on the Geography of Western  
Afghanistan. [Jl xxviii, 553]
- Sketch of the Recorded Revenues of  
the states beyond the Sutlej about  
1750 to 1800. [Jl xxviii, 822]

- Anderson, Major William (*contd*)  
 —Translation of Ibn Huokul's Account of Scinde [*Jl* xxi, 49  
 Ibn Huokul's Account of Seestan, translated [*Jl* xxi, 365  
 Ibn Huokul's Account of Khorasan [*Jl* xxii, 152
- Arabic into Persian, on the Introduction of [*As Res* ii, 205
- Armstrong, Dr J — A Description of some new species of Hydroid Zoophytes from the Indian Coasts and Seas [*Jl* xlviii, pt ii, 95
- Arracan Bell Restoration and Translation of the Inscription on the large, now at Nadrohighat, Zillah Alligarh [*Jl* vii, 287
- Asiatic Languages, comparison of [*Jl* vii, 707
- Assam, Earthquakes in See Earthquakes
- Assam, Report of the Society of Arts on Specimens of Rice, Wool, &c, from Nepal and [*Jl* v, 365
- At'har Ali Khan — On the Baya or Indian Cross-Bank [*As Res* ii, 109.  
 On the Cure of the Elephantiasis [*As Res* ii, 149
- Atkinson, E T — Memorandum, accompanying a set of Photographs of the Ruins of Garhwa near Sheoráhpúr, in the Allahabad District [*Proc* 1874, 123
- Attar Singh — History of the Village of Arura, Ludhiáná [*Proc* 1871, 247
- Avdall, Johannes — Memoir of the Life and Writings of St Nierses Olajensis surnamed the Graceful, Pontiff of Armenia [*Jl* v 129  
 Note on some of the Indo Scythic Coins found by Mr C Masson at Beghrám, in the Kohistán of Kabul [*Jl* v, 266  
 Memoir of a Hindu Colony in Ancient Armenia [*Jl* v, 331  
 Note on the Origin of the Armenian Era and the Reformation of the Haican Kalendar [*Jl* v, 381  
 Singular Narrative of the Armenian King Arsaces and his contemporary Sapor, King of Persia, extracted from the Armenian Chronicles [*Jl* vi, 81  
 A short Memoir of Mechlthar Ghosh the Armenian Legislator [*Jl* ix 467  
 On the Laws and Law-books of the Armenians [*Jl* x 235  
 On the Invention of the Armenian Alphabet [*Jl* xiv, 522
- Avdall, Johannes (*contd*) — Authors of Armenian Grammars, from the earliest stages of Armenian literature up to the present day [*Jl* xxxvii, pt i 134  
 A Covenant of 'Alí, granting certain privileges to the Armenians [*Proc* 1869, 249  
 A Covenant of 'Alí, fourth Caliph of Baghdád [*Jl* xxxix, pt i, 60
- Ayrton, W E — Observations on method of detecting bad insulators [*Proc* 1871 76  
 Some Remarks on the connection between Inertia and Time [*Proc* 1871, 160  
 On a Galvanometer suitable for the Quantitative Measurement of, Electromotive Force [*Proc* 1871 217  
 On a Quantitative Method of testing a 'Telegraph Earth' [*Jl* xi, pt ii, 177.  
 On the Syphon Recorder [*Proc* 1872, 51.
- Baddeley, Dr P F H — On the Dust-storms of India [*Jl* xix 390.  
 On Dust Whirlwinds and Cyclones [*Jl* xxi, 140, 261, 333
- Baigas of Balaghat, Notes on the [*Proc* 1872, 172.
- Baker, Capt H C — Experiments on the Strength and Elasticity of Indian Woods [*As Res* xviii pt ii, 215
- Baker, Major W E — Description of the Fossil Elephant's Tooth from Somrootee, near Nuhun [*Jl* iii, 638  
 On the Fossil Elk of the Himálaya [*Jl* iv 506  
 Selected Specimens of the Sub Himalayan Fossils in the Dadupur Collection [*Jl* iv, 565  
 Note on the Fossil Camel of the Sub-Himálayas [*Jl* iv, 694  
 Report on a line of Levels taken by order of the Right Honorable the Governor General between the Jumna and Sutlej Rivers [*Jl* ix 625  
 Note on a Fossil Antelope from the Dadupoor Museum [*Jl* xii 763  
 Memorandum on the prospect of reimmuration in working the Iron Mines of the Ranegunge district With a Report by Professor Oldham [*Jl* xxii 1-4
- Baker, Major W E, and Durand, H M — Table of Sub Himalayan Fossil Genera in the Dadupur Collection [*Jl* x 231

- Baker, Major W E , and Durand, H M (*contd*) — Sub - Himálavan Fossil Remains of the Dáidúpur Collection [*Jl* v 486 661 739  
Fossil Remains of the smaller Carnivora from the Sub-Himálavas [*Jl* v 576
- Baker, Rev — On the Poetry of Madagascar [*Jl* i, 86
- Balfour, Edward — On the Migratory Tribes of Natives in Central India [*Jl* xii, 1
- Balfour, Dr Francis — A Treatise on the Barometer [*As Res* iv 195  
Observations respecting the remarkable Effects of Sol-Lunar Influence in the Fevers of India , with the Scheme of an Astronomical Ephemeris for the purposes of Medicine and Meteorology [*As Res* viii, 1  
Extracts from the Tehzeebul Mantik, or "Essence of Logic," proposed as a small supplement to Arabic and Persian Grammar, and with a view to elucidate certain points connected with Oriental Literature [*As Res* viii 89
- Ball, Valentine — On Stone Implements [*Proc* 1865 127  
On Chipped Implements of Bengal [*Proc* 1867, 143  
On Synostosis of human skull [*Proc* 1867, 147  
List of Localities in India where ancient Stone Implements have been discovered [*Proc* 1867, 147  
On the Jungle Products used as articles of food by the Inhabitants of the districts of Manbhoom and Hazaribagh [*Jl* xxxvi, pt. ii, 73  
Remarks on Elephants [*Proc* 1868, 129  
On Stone Implements [*Proc* 1868, 177  
On the ancient Copper Miners of Singhbhúm [*Proc* 1869 170  
Notes on the Flora of Manbhúm. [*Jl* xxxviii pt ii 112  
Remarks on Celts found in Singhbhúm [*Proc* 1870 268  
Brief Notes on the Geology and on the Fauna in the neighbourhood of Nancowry Harbour, Nicobar Islands [*Jl* xxxix pt ii 25  
Notes on the Geology of the vicinity of Port Blair Andaman Islands [*Jl* xxxix, pt ii 291  
Notes on Birds observed in the neighbourhood of Port Blair, Andaman Islands, during the month of August, 1869 [*Jl* xxxix, pt. ii, 239
- Ball, Valentine (*contd*) — Remarks on Birds captured in the Red and Arabian Seas [*Proc* 1871, 249  
Names of Birds, &c, in four of the aboriginal languages of Western Bengal [*Jl* xi, pt i, 103  
Notes on a Collection of Birds made in the Andaman Islands by Assistant Surgeon G E Dobson, M B , during the months of April and May [*Jl* xli, pt ii, 273  
On the occurrence of *Tupaia Elliotti*, Waterhouse in the Sâtpúra Hills, Central Provinces [*Proc* 1874, 95  
On an Ancient Perforated Stone found in the Sâtpúra Hills [*Proc* 1874, 96  
On some Stone Implements of the Barmese type, found in Pargana Dálbhúm, District of Singhbhúm [*Proc* 1875 118  
Remarks on two Specimens of Indian Boomerangs [*Proc* 1875, 136  
Exhibition of a Series of Khond Weapons &c from the Tributary States of Orissa [*Proc* 1876, 114  
On an Ancient Kitchen-Midden at Chaudwar, near Cuttack [*Proc* 1876, 120  
On Stone Implements found in the Tributary States of Orissa [*Proc* 1876 122  
Remarks on the Abstract and Discussion of Dr O Feistmantel's Paper, entitled ' Giant-Kettles (pot-holes) caused by water-action in Streams in the Rajmahal hills and the Barákur district ' [*Proc* 1877 140  
Notes on certain Mammals occurring in the basin of Máhanadi [*Proc* 1877, 168  
Exhibition of two Stone Implements from Parasnáth Hill [*Proc* 1878 125  
On a forgotten Record of the occurrence of the Lion in the district of Palamow and its connection with some other facts regarding the Geographical Distribution of Animals in India [*Proc* 1881, 3  
On Nature and Use of Fire Sticks [*Proc* 1881 72  
Remarks on Relics from Buddha Gaya [*Proc* 1881 89  
Remarks on Paper on Inhabitants of the Nicobars [*Proc* 1881 110  
Exhibition of an ancient Stone Implement made of magnetic iron ore [*Proc* 1881 120  
On the Origin of the so called Kharakpur Meteorite [*Proc* 1881 140

- Ball, Valentine (*contd*) — On the Identification of certain Diamond Mines in India, which were known to and worked by the Ancients, especially those which were visited by Tavernier With a Note on the history of the Koh-i-nur [Jl i, pt ii 31  
Additional Note on the Identification of the ancient Diamond Mines visited by Tavernier [Jl i, pt ii, 219
- Ballantyne Dr J R — Sanskrit Inscription from Behar, with a Transliteration by Dr Ballantyne and Remarks by Capt M Kittoe [Jl xvii pt i, 492  
Sanskrit Inscription from Behar Translated, with Remarks, by Capt M Kittoe [Jl xviii 492  
See Kittoe, Capt M, and Roer, Dr E
- Bandyopadhyaya, Brajanatha — Hamir Rāsa, or a History of Hamir, Prince of Ranthambor Translated from the Hindi [Jl xlviii, pt i, 186
- Banerji, Revd Krishna Mohana — The "Mahimnastava," or a Hymn to Shiva, with an English translation. [Jl viii, 355  
On Translation of Technical Terms [Proc 1866 155, 173  
On Paper on Human Sacrifices in ancient India [Proc 1876, 53
- Banerji, Rangalal — Identification of certain Tribes mentioned in the Puranas with those noticed in Col Dalton's Ethnology of Bengal [Proc 1874 7  
Note on a Copper-plate Grant found in the Record Office of the Cuttack Collectorate [Jl xlv pt i 149
- Banurji, Chandrasekhara — Notes on the Antiquities of the Nāltā the Assā and the Mahabinayaka Hills of Cuttack [Jl xxxix pt i 158  
An Account of the Antiquities of Jajpūr in Orissā [Jl xl, pt i 151  
The Kaimur Range [Jl xlv pt i 16
- Barbe, Revd M — Some Account of the Hill Tribes in the interior of the district of Chittagong in a letter to the Secretary of the Asiatic Society [Jl xiv, 280
- Barbe, Revd P — Notice of the Nicobar Islands [Jl xv, 44
- Barrow, H — Horary Observations of the Barometer Thermometer and Wet-bulb Thermometer made at Calcutta on the 21st and 22nd of December 1836 [Jl v, 51
- Barrow, H. (*contd*) — Horary Observations of the Barometer Thermometer and Wet-bulb Thermometer made at Calcutta on the 21st and 22nd of March, 1836 [Jl v 243
- Basevi, Capt J P — On the Pendulum operations about to be undertaken by the Great Trigonometrical Survey of India, with a sketch of the theory of their application to the determination of the earth's figure, and an account of some of principal observations hitherto made [Jl xxxiv, pt ii, 251
- Bastian, Dr A — On some Siamese Inscriptions [Jl xxxiv, pt i, 27  
Translation of an Inscription copied in the temple of Nakhon Vat, or the City of Monasteries near the capital of ancient Kambodia [Jl xxxvi, pt i, 76
- Basu, Durgarama — Transcript and translation of a copper-plate grant of Govinda Chandra of Kanauj [Proc 1876, 130
- Batsch, Revd F — Language of Dravidian Aborigines Notes on the Oraon Language [Jl xxxv, pt. ii, Extra No. 251
- Batten, J H — Note on a Visit to the Niti Pass of the grand Himalayan Chain [Jl vii 310  
A few Notes on the subject of the Kumaon and Rohilound Tarace [Jl xiii, 887  
See Herbert, Capt, and Manson, Capt
- Bayley, Hon E C — Note on some Sculptures found in Peshawar [Jl xxi 606  
Note on two Inscriptions at Khumara, in the Kangra district [Jl xxiii 57  
Note on the Translation of a Bactrian Inscription from Wardak [Jl xxx, 347  
Remarks on Bactro Buddhist Relics from Riwāl Pindī [Jl xxxi 184  
On Arian Alphabets [Proc 1867, 47  
Note on a Coin from Major Strutt [Proc 1869 201  
Memorandum on, and tentative rolling of, the Sui Vihar Inscription from near Bhawalpur [Jl xxxix pt i 65  
Letter regarding a new Gold Mohur [Proc 1871, 87  
Letter on an Irish Celt [Proc 1872 22
- Note on two Coins from Kanauj [Jl xlv pt i 164  
Further Note on Coins from Kanauj [Jl xlv pt i 164

- Bayley, Hon E C (*contd*)—Note on two Muhammadan Coins  
[*Jl* xlii, pt 1, 311  
Remarks on a Coin of Ghīyās-ud-dīn A'zam Shāh [*Proc* 1874, 157  
Note on a Hoard of 543 Sassanian Coins in the possession of Col. H Hyde, R E [*Jl* xliii, pt 1, 99  
Remarks on Inscription of the time of Skanda Gupta [*Proc* 1875, 45  
Remarks on Human Sacrifices in ancient India. [*Proc* 1876, 55  
Exhibition of Silver Gilshan, Sassanian, and Parthian Coins, and of four Gold Coins belonging to Mr J R Reid [*Proc* 1876, 219  
Exhibition of Partho-Persian Coins [*Proc* 1877, 2  
Or a forged Palī Inscription [*Proc* 1877, 267
- Bayley, W B—Statistical View of the Population of Burdwan, &c [*As Res* xii, 547
- Bayne, R R—Notes on the Remains of portions of Old Fort William discovered during the erection of the East Indian Railway Company's Offices [*Jl* lii, pt 1, 105  
Note on Further Discoveries made on the site of Old Fort William [*Proc* 1883, 42
- Beale, J W—Influence of the Moon on the Weather [*Jl* xxi, 501
- Beale, T W—Letter on a Persian MS, entitled 'Imarat-ul-Akbar [*Proc* 1875, 117
- Beames, J—On "Om" and 'Amen' [*Proc* 1866, 192  
Outlines of a Plea for the Arabic Element in Official Hindustani. [*Jl* xxxv, pt 1, 1  
On the Arabic Element in Official Hindustani, No 2 [*Jl* xxxvi, pt. i, 145  
On Chand's Poems [*Proc* 1868, 242  
The Nineteenth Book of the Gestes of Prithurāj by Chand Bardai, translated into English [*Proc* 1869, 235  
The Nineteenth Book of the Gestes of Prithurāj by Chand Bardai, entitled "The Marriage with Padmarati," literally translated from the old Hindi. [*Jl* xxxviii, pt 1, 145  
Reply to Mr Growse [*Jl* xxxviii, pt 1, 171  
Letter regarding an Inscription [*Proc* 1870, 4  
On the Relation of Urvā to other modern Aryan languages [*Proc* 1870, 192

- Beames, J (*contd*)—The Ruins at Kōpari, Balasore district [*Jl* xli, pt 1, 247  
The Rhapsodies of Gambhīr Rai, the bard of Nūrpūr (A D 1650) [*Proc* 1872, 156  
More Buddhist Remains in Orissa [*Jl* xli, pt. 1, 7  
Translations of selected portions of Book I of Chand Bardai's Epic [*Jl* xli, pt 1, 42  
List of the Books contained in Chand's poem, the Prithurāja Rāso [*Jl* xli, pt 1, 204.  
Letter on his edition of Chand [*Proc* 1873, 122  
Studies in the Grammar of Chand Bardai [*Jl* xlii, pt 1, 165  
The Altī Hills in Cuttack. [*Jl* xlii, pt 1, 19  
The Rhapsodies of Gambhīr Rāi, the bard of Nūrpur, A D 1650 [*Jl* xlii, pt. 1, 192  
Reply to Dr Mitra's remarks on paper on history of Orissa [*Proc* 1883, 42  
Old Dutch Hatchments in Chinsurah Church [*Proc* 1883, 145  
Notes on the History of Orissa under the Mahomedan, Maratha, and English rule [*Jl* lii, pt 1, 231
- Beavan, Capt R C—On Antiquities of Manbhoom [*Proc* 1865, 66  
Contributions towards a history of *Panolu Eldi* McLelland [*Jl* xxxvi, pt. ii, 175
- Becher, Major J R—Letter containing inquiries into a rumour respecting the stoppage of the River Indus in the year 1858 [*Jl* xxviii, 219
- Bedford, J R—On the Meteorology of Rampore Bauleah [*Jl* xxi, 593  
Contributions to the Statistics of Bengal,—Income, Expenditure and Food [*Jl* xxii, 387.
- Benson, W H—Account of a new genus of Land Snails allied to the genus *Cyclostoma* of Lamarck, with a description of a species found on the outlying rocks of the Rajmāhal range of hills [*Jl* i, 11  
Account of *Oxygyrus* a new genus of Pelagian Shells allied to the genus *Atlanta* of Lesueur, with a Note on some other Pelagian Shells lately taken on board the ship *Malcolm* [*Jl* iv 175  
Description of two Species of *Carinaria*, lately discovered in the Indian Ocean [*Jl* iv, 215  
Corrected Character of the genus *Cuvieria* of Rang and Notice of a second species inhabiting the tropical Indian Ocean. [*Jl* iv, 698

- Benson, W H (*contd*)—Descriptive Catalogue of Terrestrial and Fluvial Testacea, chiefly from the North-East Frontier of Bengal [Jl v, 350]
- Descriptive Catalogue of a Collection of Land and Fresh-water Shells, chiefly contained in the Museum of the Asiatic Society [Jl v 741]
- Description of the Shell and Animal of *Nematura*, a new genus of Mollusca, inhabiting situations subject to alternations of fresh and brackish water [Jl v 781]
- Notice on *Balanium* a genus of the Pteropodous Mollusca, with the characters of a new species inhabiting the Southern Indian Ocean [Jl vi, 150]
- Note on the genera *Oxygyrus* and *Bellerophon* [Jl vi, 316]
- Note on the Affinities of *Galathea* of Lamarck (*Potamophila* of Sowerby), a genus of Fluvial Testacea [Jl vii, 420]
- Notes on the Rev F Mason's paper 'On the Shells of the Tenasserim Provinces' [Jl xviii 164]
- Chusan Shells Described by W H Benson. Collected by Dr T Cantor [Jl xxiv, 119]
- See Hutton, Lieut T
- Bentley, John — Remarks on the principal Eras and Dates of the ancient Hindus [As Res v 315]
- On the Antiquity of the Sūrya Sidhānta, and the formation of the Astronomical Cycles therein contained [As Res vi 537]
- On the Hindu Systems of Astronomy, and their connection with History in ancient and modern times [As Res viii 193]
- Benza, Dr P M —Geological Sketch of the Nilgherries (Nil-giri) [Jl iv 413]
- Beosi River, Iron Suspension Bridge over the, near Sāgar, Central India [Jl ii 538]
- Berry, Dr Andrew —An Account of the Male Plant which furnishes the Medicine generally called Columbo or Columba Root [As Res x 385]
- Beveridge, H —On a Copper-plate Inscription found at Bākurganj [Proc 1873 171]
- Were the Sundarbans inhabited in ancient times? [Jl xlv pt 1 71]
- The Antiquities of Bagurā (Bogra) [Jl xlvii pt 1 89]
- Beverley, H —Knotted Ropes used by the Sintāls in taking the census of 1872 [Proc 1872, 192]
- Beverley, H (*contd*)—Remarks on the Recent Census of the Town of Calcutta [Proc 1876, 111]
- Remarks on old Maps of Calcutta, &c [Proc 1881, 90]
- Bhattacharjī, Rishi Kesh —On the Identity of Upello with Upplava [Jl i pt 1, 130]
- Biddulph, Major J —Remarks on a Head of *oris poli* [Proc 1879 280]
- Bidle, Dr G —The Pagoda or Varāha Coins of Southern India [Jl liii pt 1 33]
- Bigge Lieut H — Despatch from Lieut H Bigge, Assistant Agent, detached to the Naga Hills, to Capt Jenkins, Agent, Governor General, N E Frontier [Jl x, 129]
- Bijaya Mandir Udayapur, &c, Inscription from the [Jl xvii pt 1 68]
- Bird, James —On the Historical Geography of Hindustan, and the Origin of the Social State among the Hindus [Jl ix, 848]
- Bird, Dr. James —Opening of the Topes at the Caves of Kanari, near Bombay, and the Relics found in them. [Jl x, 94]
- Birds, Catalogue of Indian [Jl i, 261, 315]
- Black, F C —See Smith, V A
- Blake, Captn —Information regarding Illanoon Pirates [Jl vii 978]
- Bland, Dr William —Notes on Delhi Point, Pulo-Tinghie &c, and on some Pelagic Fossil Remains found in the rocks of Pulo-Lédah [Jl v, 575]
- Note on the Genus *Pterocyclos* of Mr Benson and *Spiraculum* of Mr Pearson [Jl i, 757]
- Note on the Malay Woodpecker [Jl vi 952]
- Blanford Henry F —On Dr Gerard's Collection of Fossils from the Spiti Valley, in the Asiatic Society's Museum [Jl xxvii, 124]
- Note on a Tank section at Scaldah, Calcutta [Jl xxxvii, 154]
- Note on the Hailstorm of Thursday the 24th March [Jl xxxiii 570]
- On Scientific Technology [Proc 1866, 168]
- On Celts [Proc 1865, 79]
- On certain protracted Irregularities of Atmospheric Pressure in Bengal in relation to the Monsoon Rainfall of 1868 and 1869 [Jl xxxix pt ii 123]
- On the Normal Rainfall of Bengal [Jl xxxix pt ii 217]
- On Barometric and other Meteorological Curves [Proc 1871, 69]

Blanford, Henry F. (*contd*)—On some undescribed Species of *Camp-toceras* and other Land-shells

[*Jl* xl, pt 11 39

Note on the Error of the Calcutta Standard Barometer compared with those of Kew and Greenwich

[*Jl* xl pt. 11 46

Remarks on Rude Stone Monuments in Chutiá Nágpúr [*Proc* 1873, 130

On the Climate of Bengal

[*Proc* 1873 178

On some recent Evidence of the Variation of the Sun's Heat

[*Jl* xlii, pt 11, 21

Exhibition of two series of Synoptical Weather Charts of India with remarks thereon [*Proc* 1876 18

On certain protracted Irregularities of Atmospheric Pressure in the Indian Monsoon-region and their relation to variations of the local Rainfall [*Jl* xlv pt 11 27

An Account of Experiments made in 1875 and 1876 in various parts of India, for the purpose of comparing the observed Temperature of the Dew-point with that computed from the Psychrometer by different methods of reduction

[*Jl* xlv pt 11 53

Remarks on Himalayan Glaciation

[*Proc* 1877 3

Note on the Variation of the Barometric Tides in connexion with Diurnal Land- and Sea-Breezes

[*Jl* xlv pt 11 45

Catalogue of the recorded Cyclones in the Bay of Bengal up to the end of 1876 [*Jl* xlv pt 11, 325

Exhibition of Autographic Records of Nor'-Wester Storms and of Weather Charts [*Proc* 1878 104

Exhibition of an enlarged Photograph by M Janssen of part of the Solar Disc. [*Proc* 1879 138

On the Diurnal Variation of Rainfall Frequency at Calcutta

[*Jl* xlviii pt. 11 41

Exhibition of a Balfour Stewart's Actinometer [*Proc* 1880, 6

Note to accompany some Drawings of large Hailstones by Col. H H Godwin-Austen and Mr S E Peel

[*Proc* 1880 103

On the High Atmospheric Pressure of 1876-78 in Asia and Australia in relation to the Sun-spot Cycle.

[*Jl* xlix pt 11, 70

On Photographs of the Van Rysselberghe Meteorograph

[*Proc* 1881, 65

Blanford, Henry F (*contd*)—On the Relations of Cloud and Rainfall to Temperature in India and on the opposite Variations of Density in the higher and lower Atmospheric Strata [*Jl* 1, pt 11 69

Description of a Ringage with evaporimeter, for remote and secluded stations [*Jl* 1 pt 11 8

Some further results of Sun-thermometer observations with reference to atmospheric absorption and the supposed variation of solar heat.

[*Jl* 1 pt 11, 72

Remarks on Hailstorm at Shamnagar [*Proc* 1883, 58

Remarks on Paper on Air-temperature and Humidity at different elevations [*Proc* 1883, 87

Remarks on Paper on Measurement of Solar Radiation [*Proc* 1883 89

See Blanford, William T, Harding, Chas, Stoliczka, Dr F

Blanford, William T—On the Rocks of the Damúda group and their associates in Eastern and Central India, as illustrated by the re examination of the Rániganj field

[*Jl* xxix, 352

Contributions to Indian Malacology, No III Description of new operculated Land-shells from Pegu Arakan and the Khasi hills (*See also* Blanford, W T, and H F)

[*Jl* xxxi, 135

Account of a Visit to Puppá doung, an extinct volcano in Upper Burma.

[*Jl* xxxi 215

Contributions to Indian Malacology, No IV Descriptions of new Land-shells from Ava and other parts of Burma [*Jl* xxxii 319

Contributions to Indian Malacology, No V Descriptions of new Land-shells from Arakan Pegu and Ava, with Notes on the distribution of described species [*Jl* xxxiv pt 11, 66

On worked Agates of stone age.

[*Proc* 1866 230

Contributions to Indian Malacology, No VI Descriptions of new Land-shells from the Nilgiri and Annamullay Hills and other places in the Peninsula of India.

[*Jl* xxxv pt. 11, 31

Contributions to Indian Malacology, No VII List of species of Unio and Anodonta described as occurring in India, Ceylon and Burma.

[*Jl* xxxv, pt 11, 134

On Stone Implements

[*Proc* 1867, 136



- Blanford, William T. (*contd*)—  
On the Superior Antiquity of Indian  
Stone-weapons [*Proc* 1867 144]
- Contributions to Indian Malacology,  
No VIII List of Estuary Shells  
collected in the delta of the  
Irrawady in Pegu, with descrip-  
tions of the new species  
[*Jl* xxxvi. pt ii, 51]
- Zoological Notes  
[*Jl* xxxvi. pt ii 189]
- Letter from Aden. [*Proc* 1868, 65]
- Letter from Zulla, Abyssinia  
[*Proc* 1868 83]
- Letter from Senaffè [*Proc* 1868, 167]
- Notes on a Journey in Northern  
Abyssinia [*Proc* 1868 276]
- Contributions to Indian Malacology  
No IX. Descriptions of new Dip-  
lomatinae from Darjiling and  
the Khasi Hills  
[*Jl* xxxvii pt ii. 77]
- Contributions to Indian Malacology  
No X. Descriptions of new species  
of Cyclophoridae of Ennea and  
Streptaxis from the hills of South-  
ern and South-Western India  
[*Jl* xxxviii. pt ii, 125]
- Ornithological Notes chiefly on some  
Birds of Central, Western and  
Southern India  
[*Jl* xxxviii. pt ii, 164]
- Contributions to Indian Malacology  
No XI Descriptions of new  
species of Paludomus Cremonocon-  
chus, Cyclostoma and of Helicidae  
from various parts of India  
[*Jl* xxxix. pt ii. 9]
- Notes of some Reptilia and Amphibia  
from Central India  
[*Jl* xxxix pt ii. 335]
- Note on Hemidactylus marmoratus  
H. Kelaart and Ablabes Humberti.  
[*Proc* 1871 173]
- On chipped quartzite Implements  
found on the Godavery  
[*Proc* 1871 179]
- Note on Colonel McMaster's List of  
Birds from Nagpore, &c  
[*Jl* xl. pt ii. 216]
- List of Birds collected or observed in  
the Wardha Valley and its vicinity  
near Chanda. [*Jl* xl pt ii. 263]
- Account of a Visit to the Eastern and  
Northern Frontiers of Indepen-  
dent Sikkim, with Notes on the  
Zoology of the Alpine and Sub-  
Alpine regions. Part I.  
[*Jl* xl pt ii, 367]
- Blanford, William T (*contd*)—  
Account of a Visit to the Eastern and  
Northern Frontiers of Independent  
Sikkim with Notes on the Zoology  
of the Alpine and Sub-Alpine re-  
gions Part II [*Jl* xli pt ii. 39]
- On Birds from Sikkim  
[*Jl* xli. pt. ii. 152]
- Monograph of Himalayan Assamese,  
Burmese and Cingalese Clausiliae  
[*Jl* xli. pt ii, 190]
- Note on the Genus Gymnops, W  
Blanford (Lacertidae)  
[*Jl* xlii. pt i. 144]
- On the Scientific Names of the Sind  
'Ibex,' the Markhor and the  
Indian Antelope [*Jl* xlii, pt ii 12]
- Note on the Molluscan Genera  
*Cerastole*, Benson and *Fraseria*  
*Paladilhe*, and on some Species of  
Landshells from Aden  
[*Jl* xlii pt. ii 41.]
- Remarks on Flint Cores and Flakes  
from Sakhar and Rohri in Sind.  
[*Proc* 1875 134]
- Exhibition of Skins of Tibetan  
Mammalia [*Proc* 1875 197]
- List of Mammalia collected by the late  
Dr Stoliczka when attached to the  
embassy under Sir D Forsyth in  
Kashmir Ladak. Eastern Turkestan  
and Wakhán, with Descriptions of  
new Species [*Jl* xlii pt ii 105]
- On the Species of Marmot inhabiting  
the Himalaya Tibet and the ad-  
joining regions [*Jl* xlii pt. ii, 114]
- List of Reptilia and Amphibia col-  
lected by the late Dr Stoliczka in  
Kashmir Ladák. Eastern Turkestan  
and Wakhán, with Descriptions of  
new Species [*Jl* xlii pt ii 191]
- Note on (i) *Elachistodon Wester-*  
*manni* (ii) *Platiceps semifasciatus*  
and (iii) *Ablepharus pusillus* and  
*Blepharosteres agilis*  
[*Jl* xlii pt ii 207]
- Note on a large Hare inhabiting high  
elevations in Western Tibet  
[*Jl* xlii pt ii 214]
- On Iron Arrow-heads from Sind  
[*Proc* 1876 116]
- Exhibition of Drawings by Capt E.  
Mockler, Pol. Agent Guádar repre-  
senting Ancient Dwellings and  
Tombs near Guádar in Baluchistan  
with Description [*Proc* 1876 172]
- On some Lizards from Sind with  
Descriptions of new Species of  
*Ptyodactylus*, *Stenodactylus* and  
*Trapezus* [*Jl* xlii pt. ii 18]
- Description of *Felis Slarriana* a new  
Lynxine Cat from Eastern Turke-  
stan. [*Jl* xlii, pt ii 40]

- Blanford, William T (*contd*)—  
On the Physical Geography of the Great Indian Desert with especial reference to the former Existence of the Sea in the Indus Valley, and on the Origin and Mode of Formation of the Sandhills [*Jl* xlv pt ii 86  
Description of *Golunda Elliots* from Sind [*Jl* xlv, pt ii, 165  
Notes on some recent Researches by Prof Jettelles of Vienna on the Origin of the Domestic Dog [*Proc* 1877 114  
On an apparently undescribed Wensel from Yarkand [*Proc* 1877 148  
Exhibition of a Collection of Pottery, &c received from Major E Mockler, Pol Agent at Guadar, Baluchistan [*Proc* 1877 157  
On an apparently undescribed Wensel from Yarkand [*Jl* xlv pt ii 259  
On the Metad Rat (*Golunda Meltada* Gray) with a Note on *Golunda Elliots* [*Jl* xlv pt ii 288  
Description of *Spruculum Mastersi* [*Jl* xlv pt ii 313  
Note on two Species of Asiatic Bears the "Mamh" of Baluchistan and *Ursus prunoeus*, Blyth, of Tibet and on an apparently undescribed Fox from Baluchistan [*Jl* xlv pt ii 315  
On an apparently new Hare and some other Mammalia from Gilgit [*Jl* xlv, pt ii, 323  
Exhibition of a Geological Map of Sind, with an Account of the Geology of the Province [*Proc* 1878, 3  
Descriptions of two apparently new Mammals from Tenasserim [*Proc* 1878 71  
Exhibition of Skins of adult wild Swans from Sind and the Punjab [*Proc* 1878, 138  
Remarks on *Arvicola indica* Gray, and its relation to the Sub genus *Neolua*, Gray [*Proc* 1878, 195  
Description of *Ruticilla schisticeps*, Hodgs [*Jl* xlvii pt. ii 1  
Notes on some Reptilia from the Himalayas and Burma [*Jl* xlvii pt. ii 125  
On some Mammals from Tenasserim [*Jl* xlvii pt ii 150  
Description of a supposed new Hedgehog from Muscat in Arabia [*Jl* xlvii pt. ii 212  
Note on the Mamh or Baluchistan Bear (*Ursus Gedroianus*) [*Proc* 1879, 4

- Blanford, William T (*contd*)—  
Exhibition of a Specimen of Hippuritic Limestone from Afghanistan [*Proc* 1879, 202  
A second note on Mammalia collected by Major Biddulph in Gilgit [*Jl* xlviii pt. ii, 95  
Notes on a Collection of Reptiles and Frogs from the neighbourhood of Ellore and Dumagudem [*Jl* xlviii pt ii 110  
Note on a Collection of Reptiles made by Major O B St John, R E, at Ajmere in Rajputana [*Jl* xlviii, pt ii, 119  
Notes on Reptilia [*Jl* xlviii pt ii, 127  
On a Species of *Trochalopteron* from Travancore [*Jl* xlix pt ii, 142  
Contributions to Indian Malacology, No XII Descriptions of new Land- and Fresh-water Shells from Southern and Western India Burmah, the Andaman Islands &c [*Jl* xlix, pt ii, 181  
Description of an *Arvicola* from the Punjab Himalayas [*Jl* xlix pt ii 244  
On the Voles (*Arvicola*) of the Himalayas, Tibet and Afghanistan [*Jl* 1, pt ii, 88  
On *Myospalax fusocapillus*, Blyth [*Jl* 1, pt. ii 118  
Notes on an apparently undescribed *Taranus* from Tenasserim and on other Reptilia and Amphibia [*Jl* 1, pt ii, 239  
A numerical Estimate of the Species of Animals chiefly Land and Fresh-water hitherto recorded from British India and its Dependencies [*Jl* 1 pt ii, 263  
Blanford W T, and H F—Contributions to Indian Malacology No I [*Jl* xxix, 117  
Contributions to Indian Malacology, No II [*Jl* xxx 347d  
Blaquiere W C — The Rhudhiradhayava or Sanguinary Chapter, translated from the Calici Puran [*As Res* v, 371  
Blochmann, Henry—On Palaeography of India [*Proc* 1865, 171  
On Scientific Technology [*Proc* 1866, 163  
On "Om" and "Amen" [*Proc* 1866 195  
On new Arabic type [*Proc* 1867, 29,  
Notes on Sirajuddaulah and the town of Murshidabad taken from a Persian Manuscript of the Tarkih-i-Mançuri [*Jl* xxxvi, pt 1, 85

- Blochmann, Henry (*contd*)—On Persian Poets, styled Sultan [Proc 1868, 220]  
 Notes on a MS of the *Sirájallughát* [Proc 1868, 262]  
 Remarks on the *Sundarban* [Proc 1868 266]  
 Contributions to Persian Lexicography [Jl xxxvii pt 1, 1]  
 Note on the Fall of a Meteorite at Jullunder, in April A D 1621 [Proc 1869 167]  
 Observation on the Persian MS of *Jamī's Khirād-nāmah-i-Sikandari* [Proc 1869, 190]  
 Contributions to the Chronology of the reigns of Timūr and his descendants up to Sháhjahán No 1 [Proc 1869, 207]  
 Observations on Metrical Inscriptions found on Indian and Persian Coins [Proc 1869, 255]  
 Note on a Málwah Goldmuhur [Proc 1869, 266]  
 Badáoní and his Works [Jl xxxviii pt 1, 105]  
 Observations on a Sanad &c [Proc 1870 6]  
 Notes on Places of Historical Interest in the district of Hnglí I Madáran, and Pauduah [Proc 1870 109]  
 Note on a Persian MS entitled *Mirát-ul-Quds*, a life of Christ, compiled, at the request of the Emperor Akbar, by Jerome Xavier [Proc 1870, 138]  
 On Coins sent by Mr Ferrar from Pertabgar [Proc 1870, 151]  
 Remarks on the *Balwanthnamah* [Proc 1870, 218]  
 Remarks on the Arabic Inscription of the Bonhara Mosque [Proc 1870, 297]  
 On History of the Rájahs of Kharakpur [Proc 1870, 305]  
 Notes on the Arabic and Persian Inscriptions in the Húglí district [Jl xxxix pt 1, 280]  
 Facsimiles of several Autographs of Jahángir Sháhjahán and Prince Dára Shikoh, together with Notes on the Literary Character and the Capture and Death of Dára Shikoh [Jl xxxix, pt. 1, 271]  
 Notes on Arabic and Persian Inscriptions [Proc 1871 126]  
 Observations on a Persian MS on the Lives of the twelve Apostles, by Jerome Xavier [Proc 1871, 138]  
 Remarks regarding the Birthplace of Todar Mall [Proc 1871, 178]  
 Note on three Arabic Inscriptions by early Bengal Kings [Proc 1871, 245]

- Blochmann, Henry (*contd*)—Notes from Muhammadan Historians on Chutiá Nágpúr Pachet and Paláman. [Jl xl, pt 1, 111]  
 Notes on several Arabic and Persian Inscriptions [Jl xl, pt. 1 251]  
 Remarks on Mr Ferrar's letter regarding Todar Mall [Proc 1872, 36]  
 Remarks on Inscriptions received from Mr Wilson [Proc 1872 47]  
 Remarks on Bengal and Dak'hin Silver Coins [Proc 1872, 118]  
 Inscription on a Tomb and Mosque at Sambhalherá [Proc 1872 165]  
 Inscriptions from Kol [Proc 1872, 166]  
 Inscriptions from Miyán Mir &c [Proc 1872 168]  
 Inscription on Jahánará Banú Begum's Tomb, Delhi. [Proc 1872 169]  
 Inscription on the Chase of one of the trophy guns formerly belonging to the Bengal Artillery [Proc 1872, 169]  
 Remarks on Readings of rare Bengal Coins [Proc 1872 202]  
 Koch Bihár, Koch Hájo, and Asam in the 16th and 17th centuries, according to the Akbar-námah the Padisháh-námah, and the *Fathyah* 'Ibriyah [Jl xl, pt 1, 49]  
 Notes on Arabic and Persian Inscriptions No II [Jl xl, pt 1, 102]  
 On a new King of Bengal (*Aláuddin Firúz Sháh*), and Notes on the Husaini Kings of Bengal and their Conquest of Chátgáon (*Chittagong*) [Jl xl pt. 1 331]  
 Remarks on Major Stubb's Inscriptions from Lakhnaú [Proc 1873 11]  
 Remarks on Mr Growse's Inscriptions from Mathura [Proc 1873 12]  
 General Cunningham's Bengal Inscriptions (Muhammadan Period) [Proc 1873, 17]  
 Remarks on Bengal Coins and Inscriptions [Proc 1873, 89]  
 On Mr Delmerick's Arabic and Persian Inscriptions from Sonpat and Pánipat [Proc 1873 94]  
 Babu Gunga Parshád's Inscriptions from the Murádábát district with translations [Proc 1873 98]  
 On Inscriptions received from Jaunpúr, Pánipat and Muzaffarnagar [Proc 1873 138]  
 On two Coins received from the Rev Mr Carleton Rúpár [Proc 1873 157]  
 Readings of General Cunningham's Inscriptions from Rapri Mahobá and Diblí, and Mr T W Beales' Inscriptions from Biánah Aymir and Agráh. [Proc 1873, 156]

Blochmann, Henry (*contd*)—

Readings of Col Guthrie's cast of a Bengal Coin of Firuz Shah the Second [*Proc* 1873 171]

On Arabic and Persian Inscriptions received from General Cunningham [*Proc* 1873 197]

Contributions to the Geography and History of Bengal (Muhammadan Period)—Pt I Geographical Pt II Historical based on Inscriptions received from General A Cunningham

Dr J Wise, L V Westmacott Esq W L Heeley, Esq Walter M Bourke Esq &c and on unpublished Coins with Notes by E V Westmacott, Esq and Dr J Wise [*Jl* xlii pt 1 209]

Remarks on some Inscriptions received from General Cunningham and Mr Delmerick [*Proc* 1874 69]

Remarks on a rare Coin of Mahmud ibn Muhammad Shah ibn Tughluq Shah received from Mr Delmerick [*Proc* 1874 92]

Remarks on some Inscriptions received from General Cunningham and Messrs Atkinson and James [*Proc* 1874 100]

Translations and Notes to Readings of Inscriptions received from Mr T W Beale Agra [*Proc* 1874 160]

Remarks on three Coins exhibited by Col H Hyde [*Proc* 1874 207]

Exhibition of a Persian MS with Shāh Jahān's autograph [*Proc* 1874 208]

Translations and Notes on Inscriptions from Agra Sikandrah and Narnaul [*Proc* 1874, 209]

Contributions to the Geography and History of Bengal (Muhammadan Period) No II [*Jl* xlii pt 1 280]

Readings and Translations of Inscriptions from Jaunpur and Tilbegampur [*Proc* 1875 14]

Exhibition of Bengal Coins belonging to Col Hyde. [*Proc* 1875, 112]

Readings of Muhammadan Inscriptions received from Capt. H C Marsh and Mr T W Beale Agra [*Proc* 1875 113]

Readings and Translations of Inscriptions received from Mr J G Delmerick [*Proc* 1875 212]

Contributions to the History and Geography of Bengal (Muhammadan Period) No III [*Jl* xlii pt 1 275]

Readings and Translations of Arabic and Persian Inscriptions from Dihli, Rohatās and Sahasrām received from Messrs Delmerick Beglar and Major-General A Cunningham, C.S.I. [*Proc* 1876, 4]

Blochmann, Henry (*contd*)—

Exhibition of Coins from Kashghar presented by Dr Scully, of a unique Gold Coin of Naqir-uddin Mahmud Shah and of a Gold Coin of Muhammad bin-Tughluq [*Proc* 1876, 90]

Exhibition of Muhammadan Inscriptions from Dihli, Hicir Firūzshah and Murshidabad [*Proc* 1876 91]

Remarks on a Silver Coin of Shih-jahan II [*Proc* 1876 138]

Readings and Translations of Arabic and Persian Inscriptions received from Messrs J G Delmerick and J R Reid [*Proc* 1877, 92]

Readings and Translations of some Arabic and Persian Inscriptions from Hamsā received from Mr J G Delmerick Dihli [*Proc* 1877, 117]

Exhibition of an Impression taken by General Cunningham from a Rupee struck by Muhammad 'Adil Shah [*Proc* 1877 156]

Exhibition of, and Remarks on some Persian Inscriptions received from Mr H James Raine Jessore [*Proc* 1877, 256]

An unpublished Ghazal by Hāfiz [*Jl* xlii pt 1 237]

Exhibition of a unique Gold Coin of Julal-uddin Firuz Shah (II) of Dihli [*Proc* 1878 64]

Exhibition of a Persian MS with a Note [*Proc* 1878, 88]

Exhibition of Silver Coins from Burmah [*Proc* 1878 102]

Bloomfield, A—Letter on pieces of copper and silver from Guageria [*Proc* 1870 113]

Blundell, E A—An Account of some of the Petty States lying north of the Tenasserim Provinces drawn up from the Journals and Reports of Dr D Richardson [*Jl* v 601]

An Account of some of the Petty States lying north of the Tenasserim Provinces [*Jl* v, 688]

Blunt Captain James T—A Description of the Cuttab Minar [*As Res* iv 313]

Narrative of a Route from Chunarghur to Yertnagoodum in the Ellore Circuit [*As Res* vii 57]

Blyth Edward—A general Review of the Species of True Stag or Elaphoid form of Cervus comprising those more immediately related to the Red Deer of Europe [*Jl* x 736]

Description of another new species of Pika (Lagomys) from the Himalaya [*Jl* x, 816]

- Blyth, Edward (*contd*)—A Monograph of the species of Wild Sheep [Jl x, 858]
- Descriptions of three Indian Species of Bat, of the genus *Taphozous* [Jl x, 971]
- Notes on various Indian and Malayan Birds, with Descriptions of some presumed new species [Jl xi, 160]
- Notice of the predatory and sanguivorous habits of the Bats of the genus *Megaderma*, with some Remarks on the blood-sucking propensities of other *Vespertilionidæ* [Jl xi, 255]
- A Monograph of the species of *Lynx* [Jl xi, 740]
- Descriptive Notice of the Bat described as *Taphozous longimanus*, by Gen Hardwicke [Jl xi, 784]
- A Monograph of the Indian and Malayan Species of *Cuculidæ*, or Birds of the Cuckoo family [Jl xi, 897]
- A Monograph of the Indian and Malayan species of *Cuculidæ* or Birds of the Cuckoo family (*concluded*) [Jl xi, 1095]
- Supplement to the Monograph of the Indian and Malayan Species of *Cuculidæ*, or Birds of the Cuckoo family, published in Vol XI pp 898, 1095, *et seq* [Jl xii, 240]
- Notices of various Mammalia, with Description of many New Species [Jl xii, 463]
- "On the *Leiotrichane* Birds of the Subhemalayas" by B H. Hodgson with some additions and annotations,—a Synopsis of the Indian Parri,—and of the Indian *Fringilidæ* [Jl xiii, 933]
- Notices and Descriptions of various new or little-known Species of Birds [Jl xiv, 173]
- Description of *Caprolagus*, a new genus of *Leporine* Mammalia [Jl xiv, 247]
- Notices and Descriptions of various new or little-known Species of Birds [Jl xiv, 546]
- Drafts for a *Fauna Indica*. Comprising the Animals of the Himalaya Mountains, those of the Valley of the Indus, of the Provinces of Assam, Sylhet, Tipperah, Arracan, and of Ceylon, with Occasional Notices of Species from the Neighbouring Countries [Jl xiv, 845]
- Notices and Descriptions of various new or little-known Species of Birds [Jl xv, 1]
- Blyth, Edward (*contd*) — Notices and Descriptions of various new or little-known Species of Birds [Jl xv, 280]
- Notes on the Fauna of the Nicobar Islands [Jl xv, 367]
- Notices and Descriptions of various new or little-known Species of Birds [Jl xvi, 117]
- Some further Notice of the Species of Wild Sheep [Jl xvi, 350]
- Notices and Descriptions of various new or little-known Species of Birds [Jl xvi, 428]
- Reply to the Minute by Capt Munro, regarding the MS of the "Burnes Drawings" [Jl xvi, 1163]
- A Supplemental Note to the Catalogue of the Birds in the Asiatic Society's Museum [Jl xviii, 800]
- Description of a New Species of Mole (*Talpaleucura* Blyth) [Jl xix, 215]
- Remarks on the Modes of Variation of nearly allied Species or Races of Birds, chiefly inhabitants of India [Jl xix, 221]
- Conspectus of the Ornithology of India, Burma and the Malayan Peninsula inclusive of Sindh, Asám, Ceylon and the Nicobar Islands [Jl xix, 229]
- Conspectus of the Ornithology of India. [Jl xix, 319]
- Conspectus of the Ornithology of India, Burma and the Malayan Peninsula, inclusive of Sindh Asám, Ceylon and the Nicobar Islands [Jl xix, 501]
- Report on the Mammalia and more remarkable species of Birds inhabiting Ceylon [Jl xx, 153]
- Notice of a Collection of Mammalia, Birds and Reptiles procured at or near the station of Chérrá Punji in the Khásia hills, north of Sylhet [Jl xx, 517]
- Remarks on the different species of Orang-utan. [Jl xxii, 369]
- Notices and Descriptions of various Reptiles, new or little-known [Jl xxii, 639]
- Notices and Descriptions of various Reptiles, new or little-known [Jl xxiii, 287]
- A Monograph of the Indian Species of *Phylloscopus* and its immediate affines [Jl xxiii, 479]
- A Memoir on the Indian Species of Shrews [Jl xxiv, 24]
- Report on a Zoological Collection from the Somáhi country [Jl xxiv, 291]

Blyth, Edward (*contd*) — Further Remarks on the different Species of Orang-utan [*Jl* xxiv 518]  
 Description of a new Indian Pigeon, akin to the 'Stock Dove' of Europe, with Notices of other Columbinae [*Jl* xxvi, 217]  
 On the different Animals known as Wild Asses [*Jl* xxviii 229]  
 On the Great Rorqual of the Indian Ocean with Notices of other Cetaceae, and of the Syrenia or marine Pachyderms [*Jl* xxviii 481]  
 Note on the Sauri inhabiting Ceylon and those of the Tenasserim Province- [*Jl* xxviii 600]  
 The Cartilaginous Fishes of Lower Bengal [*Jl* xxix 35]  
 Report on some Fishes received chiefly from the Sitang River and its Tributary Streams, Tenasserim Provinces [*Jl* xxix 138]  
 On the Flat-horned Turbine Cattle of S. L. Asia, with a Note on the Races of Rein Deer and a Note on Domestic Animals in general [*Jl* xxix, 282]  
 Note on the Races of Rein Deer [*Jl* xxix 37]  
 A Memoir on the living Asiatic species of Rhinoceros [*Jl* xxxi, 151]  
 A Further Note on Elephants and Rhinoceroses [*Jl* xxxi, 196]  
 A Further Note on Wild Asses and alleged Wild Horses. [*Jl* xxxi 363]  
 A Memoir on the Rats and Mice of India [*Jl* xxxii, 327]  
 Catalogue of the Mammals of Burma Edited with Notes and Additions, by Dr J Anderson [*Jl* xlv, pt ii, Extra No. 1]  
 Catalogue of the Birds of Burma Edited with Notes and Additions, by Arthur Viscount Walden [*Jl* xlv, pt ii Extra No. 34]  
*See* Hodgson, B H , Hutton, Capt T  
 Boag, W — On the Poison of Serpents [*As Res* vi, 103]  
 Boats, Comparative Section and Tonnage of English and Indian, for River Navigation [*Jl* iii, 136]  
 Boileau, Major J T — Description of a Sundial in the Court of the Moti Masjid, in the Fort of Agra [*Jl* ii, 251]  
 Remarks on the Construction of Newman's Improved Portable Barometer, and on the mode of renewing the Gauge Point when lost. [*Jl* x, 957]

Boileau, Major J T (*contd*) — Observations of Meteors on the night between the 12th and 13th November 1841, made at the Magnetic Observatory at Simla [*Jl* x, 964]  
 Tables for determining the Elastic Force of Aqueous Vapour in the Atmosphere and the Temperature of the Dew Point by Observations of a Dry and Wet bulb Thermometer computed agreeably to Dr Apjohn's Hygrometric Formula [*Jl* xii, 135]  
*See* Ivory, —  
 Boria, Cavelly — Account of the Jains, collected from a Priest of this Sect., at Mudgeri [*As Res* ix, 244]  
 Boring Experiment, Report of the Committee appointed on the 27th March 1833 to consider on the expediency of recommending to the Government the continuance of the [*Jl* ii 369]  
 Bose, Kishen Kant — Some Account of the Country of Bhutan [*As Res* xv 128]  
 Bose, P N — Note on some Earthen Pots found in the alluvium at Mahesvara (Mahesar) [*Jl* li pt i 226]  
 Note on Málhishmati or Mahesvari (Mahesar) on the Narinada and the Identification of Hiouen Thsang's 'Mahesvarapura' [*Proc* 1883, 127]  
 Bose, Rashbihari — Extracts from my Diary regarding the Bonhara Temple near Omerpore Behar and other Antiquities of the place [*Jl* xxxix, pt i 232]  
 Letter on Kharakpúr [*Proc* 1871, 98]  
 Extracts from my Diary regarding a Visit to Kharakpur, in the district of Munger (Moughyr), and several places in the Banka Subdivision, Bhagalpúr [*Jl* xl, pt i, 22]  
 Legends and Ballads connected with persons deified or held in great veneration in Bhágalpúr and the neighbouring districts (being extracts from diaries) [*Jl* xl pt i, 183]  
 Boulderson, H S — Astronomical Observations at Bareilly [*Jl* ii, 318]  
 Meteorological Register at Bareilly in 1831 [*Jl* ii, 641]  
 Abstract Statement of 412 Villages in Zilla Bareilly Settlement under Regulation VII 1822 [*Jl* iii, 475]  
 Boulderson, S M — Abstract of a Meteorological Register kept at 'Cameville,' Mussooree (Masúrfi) [*Jl* iv, 230]  
 Bowring, L — Descriptive Notice of the District of Jhilmam [*Jl* xix, 43]



- Buchanan, Dr Francis**—Description of the Tree called by the Burmese *Lauzan* [*As Res* v 123]  
 A Comparative Vocabulary of some of the Languages spoken in the Burma Empire [*As Res* v 219]  
 On the Religion and Literature of the Burmese [*As Res* vi 163]  
 History of Cooch Behar being an extract of a passage from Dr Buchanan's Account of Rungpur (Rungapura) [*Jl* vii, 1]
- Buddha Gaya in Behar** translation of an Inscription in the Pali character and Burmese language on a stone at [*Jl* iii 214]
- Buhler, George**—A Translation of the Chapter on Oracles from the *Vyavahāra Mavukha* [*Jl* xxv pt 1 14]  
 A Notice of the *S'auvaka Smriti* [*Jl* xxv pt 1 149]  
 Account of a Recent Tour through Western Rajputana in search of Sanskrit MSS [*Proc* 1874, 93]
- Buist, Dr George**—On the General Vibration or Descent and Uphervial which seems at a recent Geological Period to have occurred all over the Northern Hemisphere [*Jl* xix 302]  
 On the Encrustation of Steam Boilers and Pipes in India [*Jl* xix 419]  
 Floods in India for 1849 [*Jl* xx, 186]  
 On the Adaptation of the Aneroid for the purposes of Surveying in India [*Jl* xx 420]  
 On the Oriental Character of certain Northern Antiquities [*Jl* xxi, 127]
- Burgess, James**—On Hypsometrical Measurements by means of the Barometer and the Boiling-point Thermometer [*Jl* xxvii, 337]
- Burke, Dr**—Report on the Value of Life among the Officers and Men in H. Majesty's Troops in India [*Jl* viii, 48]
- Burn, A**—On the Cotton called "Nurma," in Guzerat [*Jl* xi, 290]
- Burnell, A C**—Extract from a pamphlet on making Copies of Indian Inscriptions [*Proc* 1874, 125]  
 On the Invasion of Bengal by the Chola King Kulottunga [*Proc* 1876, 107]
- Burnes, Capt Alexander**—Some Account of the Salt Mines of the Punjab [*Jl* i, 145]  
 Account of the Jain Temples on Mount Abu in Guzerat [*Jl* ii, 161]  
 Description of Bokhara. [*Jl* ii, 224]
- Burnes, Capt Alexander (contd)**—  
 On the reputed Descendants of Alexander the Great, in the valley of the Oxus [*Jl* ii, 305]  
 On the "Topes" and Grecian Remains in Punjab [*Jl* ii 308]  
 Description of the Salt Works at Panchpadder Mewar [*Jl* ii, 365]  
 On the Colossal Idols of Bamian [*Jl* ii, 561]  
 On the Reg-Ruwan, or moving sand a singular phenomenon of sound near Cabul [*Jl* vii 324]  
 On the Shah-pósh Kaffirs, with specimens of their language and costume [*Jl* vii, 325]  
 Report on ten specimens of Coal from Capt Burnes [*Jl* vii, 848]
- Burnes, Capt Alexander, and Gerard, Dr**—A Sketch of the Route and Progress of Lieut. A Burnes and Dr Gerard [*Jl* i 139]  
 Continuation of the Route of Lieut A Burnes and Dr Gerard from Peshawar to Bokhara [*Jl* ii 1]  
 Continuation of Dr Gerard's Route with Lieut Burnes, from Bokhara to Meshid [*Jl* ii, 143]
- Burney, Lt-Col H**—Translation of an Inscription in the Burmese Language discovered at Buddha Gaya, in 1833 [*As Res* xx pt 1, 161]  
 Some Account of the Lacquered or Japanned Ware of Ava [*Jl* i, 169]  
 Memoir of Giuseppe d'Amato [*Jl* i, 349]  
 Notice of Pagan, the Ancient Capital of the Burmese Empire [*Jl* iv, 400]  
 Discovery of Buddhist Images with Deva-Nāgarī Inscriptions at Tagoung, the Ancient Capital of the Burmese Empire [*Jl* v, 157]  
 Some Account of the Wars between Burmah and China together with the Journals and Routes of three different Embassies sent to Peking by the King of Ava, taken from Burmese documents [*Jl* vi, 121]  
 Some Account of the Wars between Burmah and China together with the Journals and Routes of three different Embassies sent to Peking by the King of Ava, taken from Burmese documents [*Jl* vi, 405, 542]
- Burr, Captain C B**—Extract from a journal during the late Campaign in Egypt [*As Res* viii, 35]
- Burrow, Reuben**—Hints relative to Friction in Mechanics [*As Res* i 171]





Campbell Dr A (*contd*) — Notice of the Nepalese Spirit Still

[*Jl* iv 282

Notes on the State of the Arts of Cotton Spinning Weaving Printing and Dyeing in Nepal [*Jl* v 219

Notes taken at the post mortem examination of a Musk Deer

[*Jl* vi 118

Abstract of a Meteorological Register kept at the Cathmandu Residency for 1857 [*Jl* vi 610

Abstract of Meteorological Register kept at the Cathmandu Residency for July and August, 1857

[*Jl* vi 889

Notes on the Musical Instruments and Agricultural and other Instruments of the Nepalese [*Jl* vi 933

Note on the Mechu together with a small Vocabulary of the Language

[*Jl* viii 623

Note on the Tephaks of Sikkim with a Vocabulary of their Language.

[*Jl* ix 379

Note on the Limboos and other Hill Tribes hitherto undescribed

[*Jl* ix 495

On the Literature and Origin of certain Hill Tribes in Sikkim [*Jl* xi 4

Report of the Death of Mr Coma de Körös made to G A Bushby Esq. Officiating Secretary, Political Department

[*Jl* xi 303

Memorandum on the "Bora Chung" of Bootin [*Jl* xi 903

Itinerary from Phari in Thibet to Lassa with appended Routes from Darjeeling to Phari [*Jl* xvii pt 1 257

Routes from Darjeeling to Thibet

[*Jl* xvii pt ii 488

On the Elevation of Peaks in the Himalaya &c [*Jl* xvii pt. ii 576

Journal of a Trip to Sikim in December 1848, with Sketch Map

[*Jl* xviii 482

Answers to Mr Piddington's Query about Winds, Storms, &c in Thibet

[*Jl* xix 457

A Journey through Sikim to the frontiers of Thibet [*Jl* xxi 407

A Journey through Sikim to the frontiers of Thibet. [*Jl* xxi 477

A Journey through Sikim to the frontiers of Thibet [*Jl* xxi, 563

Note on the Limboo Alphabet of the Sikim Himalaya [*Jl* xxiv 202

Notes on Eastern Thibet (with Sketch Map of Route to Lassa) [*Jl* xxiv 215

A Register of the Temperature of the Surface of the Ocean from the Hooghly to the Thames

[*Jl* xxvii, 170

Campbell, Dr A (*contd*) — See Hodgson, B H, Lloyd, Lt-Col

Campbell C — Memorandum on the life sized Statues lately exhumed inside the Palace of Delhi

[*Jl* xxviii 159

Notes on the History and Topography of the Ancient Cities of Delhi

[*Jl* xxxv pt 1, 199

Campbell, Hon'ble G — On Indian Ethnology [*Proc* 1865, 142

On Languages of Cashmir [*Proc* 1866, 46, 62

On Ethnological Exhibition [*Proc* 1866 71 87, 188

On Translation of Technical Terms [*Proc* 1866, 141, 177

The Ethnology of India [*Jl* xxxv pt ii Extra No 1

List of Words and Phrases to be noted and used as test-words for the discovery of the radical affinities of languages and for easy comparison

Comparative Table of Aboriginal Words Comparative Table of Northern and Arian Words

[*Jl* xxxv pt ii, Extra No 201

On Mon Languages [*Proc* 1867, 51

Campbell, Capt J — Report on the Soda Soils of the Barramahal

[*Jl* x, 159

Report on the Kaolin Earth of Mysore [*Jl* x, 163

Report upon the Manufacture of Steel in Southern India [*Jl* xi 217

Report upon the Improvement of the Silk manufactured in Mysore and the Salem districts [*Jl* xi, 218

Report upon the Construction of Philosophical Instruments in India

[*Jl* xi, 293

Manual of Chemistry [*Jl* xi 297

Campbell, J F — On Himalayan Glaciation [*Jl* xlii pt ii, 1

Campbell, Capt J H — See Piddington H

Campbell, Capt W M — Notes on the Transit of Venus of 1874

[*Proc* 1874 241

Canal, Selections from Correspondence respecting the proposed formation of a, for Irrigation, to be supplied from the river Jumna, near the village of Kuttha Pathur in the Devra Doon

[*Jl* xi, 761

Cantor, Dr Theodore — Sketch of an undescribed Hooded Serpent with Fangs and Maxillar Teeth

[*As Res* xix, pt. 1 87

Notice of a Skull (fragment) of a gigantic Fossil Batrachian

[*Jl* vi, 538

- Cantor, Dr. Theodore (*cont'd*) — Catalogue of Mammalia inhabiting the Malayan Peninsula and Islands collected or observed. [*Jl* xv 171 241.
- On *Teredo Navalis* and a natural defence against its ravages by Mr. Lehmann from the Transactions of the Scandinavian Naturalists of Copenhagen 1840: translated and communicated. [*Jl* xvi 487.
- Catalogue of Reptiles inhabiting the Malayan Peninsula and Islands collected or observed. [*Jl* xvi 607 897 1026
- Catalogue of Malayan Fishes [*Jl* xviii 987
- See* Benson, W. H.
- Carey, V. J. — On Stone Spindle Whorls [*Proc* 1866 135
- Carey, Rev. Dr. William. — Remarks on the State of Agriculture in the District of Dinápur [*As Res* x. 1
- An Account of the Funeral Ceremonies of a Burman Priest [*As Res* xi. 186
- Carlisle, A. C. L. — Descriptions of two new species belonging to the genera *Tarania* and *Feranoides* respectively [*Jl* xxxviii pt. ii. 192
- Coins of the S'unga or Mitra Dynasty found near Rámanagar or Ahichhatra, the ancient Capital of North Panchála in Rohilkhand — the property of H. Rivett-Carnac, Esq [*Jl* xix. pt. i 21
- Carlross, Lieut. — Account of a Journey to Beylah. and Memoir on the Province of Lus [*Jl* viii. 184.
- Carnac, H. Rivett. — *See* Rivett-Carnac, H.
- Carnegy, Patrick. — Queries regarding the Races of India. [*Proc* 1868, 86
- The Bhars of Audh and Banáras. [*Jl* xlv pt. i 297
- Carte, W. E. — Notice of Amulets in use by the Trans-Himalayan Buddhists [*Jl* ix. 904
- Carter, H. J. — Report on Geological Specimens from the Persian Gulf collected by Lieut C G Constable I. N. [*Jl* xxviii 41. xxxix. 359
- Casi Raja, Pandit — An Account of the Battle of Paniput and of the events leading to it. [*As Res* iii. 91
- Carl. Goverdhan — On the Literature of the Hindus [*As Res* i. 340
- Cantley, Capt. P. T. — Notice of the occurrence of Coal and Lignite in the Himalaya [*As Res* xvi 387
- Note on the Fossil Crocodile of the Siválík Hills. [*As Res* xix. pt. i 25
- Cantley Capt. P. T. (*cont'd*) — The Fossil Gharial of the Siválík Hills [*As Res* xix. pt. i 32
- On Gypsum of the Himalaya [*Jl* i. 239
- Discovery of an ancient town near Behut in the Doab [*Jl* iii. 47
- Further Account of the remains of an ancient town discovered at Behut near Seharanpur. [*Jl* iii. 22
- Note on the Gold Washing of the Gúmá River [*Jl* iv 279
- Note on the Teeth of the Mastodons *étoites* of the Siválík Hills. [*Jl* v 194
- Note on Mastodons of the Siválík Hills [*Jl* v 195
- Note on a Fossil Ruminant allied to Giraffide in the Siválík Hills [*Jl* vii. 67
- On the Use of Wells &c. in Fertilizations as practised by the natives of the Northern Doab [*Jl* vii. 77
- On the Fossil Remains of Camels of the Siválík Hills. [*Jl* ix. 71
- Cantley, Capt. P. T.; and Falconer, Dr. Hugh. — Note on the *Uros* *Sivalensis* a new fossil species from the Siválík Hills [*As Res* xix. pt. i 163
- Synopsis of Fossil Genera and Species from the upper deposits of the tertiary strata of the Siválík Hills in the collection of the authors [*Jl* ix 70
- See* Falconer, Dr. Hugh
- Cayley, Dr. H. — Remarks on Himalayan Glaciation. [*Proc* 1877 4
- Celestial Objects, Catalogue of the most remarkable visible in the horizon of Calcutta arranged in order of Right Ascension [*Jl* ii 22
- Cervus Duvaulchi* of Cuvier or *C. Elaphoides* and Bahraya of Hutton. Note on the [*Jl* v 210
- Cesspools in Calcutta. on the removal of. [*Jl* i 100
- Chakravarti, Pandit Haradhandra — *See* Ghoshu, Pratapa Chandra.
- Chambers, Sir Robert — A Dissertation delivered at a Meeting of the Asiatic Society on the 18th of January 1798 [*As Res* v. 1
- Chambers William — Some Account of the Sculptures and Ruins at Mavalipuram a place for many miles north of Sadra and known by the name of the Seven Pagodas [*As Res* i. 14
- Champion Capt. — Notice on the *C. p. p. p.* of Hong-Kong [*Jl* xvi pt. i. 25

- Chandra, Jaya —Note on a Copper Land-Grant [Jl x, 98]
- Chapman, Dr H —Meteorological Register kept at Darjiling for the months of April, May, June and July, 1837 [Jl vi, 700]
- Meteorological Register kept at Darjiling for August 1837 [Jl vi 888]
- Chapman J S —Notes on the Gems found at Beghrum [Jl x, 613]
- Charagh Ali —See Wade, Capt C M
- Chatterjee, Chunder Seekur —On Whirlwind at Pandooah [Proc 1865, 124]
- Chinese Map of India [Jl xvii, pt ii, 60]
- Christian, J —Prashnotaramālā, or Catechetical Dialogue of Sook Translated [Jl xvi 1228]
- Christie, A T —On Porcelain Clay found at Mangalore [Jl x 967]
- Clarke, Hyde —Assyro-Pseudo Sesostri [Jl xxxv, pt i, 87]
- Clayton, Sergeant C —Description of the Tomb of an Ahom Noble, in a letter to Major S F Hannay [Jl xvii, pt i 473]
- Clint, L —A Tale by Inshā Allah Khān [Jl xxi, 1]
- Coal Beds of Assam Report upon the (Submitted to Government by the Committee appointed to investigate the Coal and Iron resources of the Bengal Presidency, as a supplement to their first printed Report) [Jl vii, 948]
- Coal Committee, Report of the [Jl ix 198]
- Coal Field of Tenasserim Papers relative to the new [Jl viii 385]
- Coal, Note on the, discovered at Khyúk Phýú, in the Arracan District [Jl ii 595]
- Coal, Table of Indian analyzed at the Calcutta Assay Office, including those published in the Gleanings in Science September 1831, arranged according to localities, extracted from the Report of the Coal Committee [Jl vii, 197]
- Cockburn, John —Notes on Stone Implements from the Khasi Hills, and the Banda and Vellore Districts [Jl xlviii pt ii, 133]
- Exhibition of Stone Implements by [Proc 1882, 6]
- Exhibition of a Panchamukha Lingam [Proc 1882, 47]
- Note on Torsion in the Awns of Spear grass [Proc 1882, 49]
- Remarks on Earthen Vessels, &c, from Mahe-ar [Proc 1882, 105]
- Cockburn, John (contd) — On a case of Polydactylism in a horse [Proc 1882 115]
- On an Abnormality in the horns of the Hog-deer, *Axis porcinus*, with an amplification of the theory of the evolution of antlers in Ruminants [Jl li, pt. ii, 45]
- On the Habits of a little-known Lizard, *Brachysaura Ornata* [Jl li pt. ii, 50]
- On the Recent Existence of *Rhinoceros Indicus* in the North-Western Provinces, and a Description of a tracing of an archaic rock painting from Mirzapur representing the hunting of this animal. [Jl lii, pt ii, 56]
- Cole, Capt R A —On Cromlechs of, in Coorg [Proc 1868, 151, 184, 243, 1869, 54]
- Extract from a Report on Cromlechs in Southern India. [Proc 1869, 202]
- Memorandum on certain Copper Grants found in the Malnád, with translations of the inscriptions [Proc 1872, 193]
- Colebrooke, Henry Thomas —On the Duties of a Faithful Hindu Widow [As Res iv, 209]
- Enumeration of Indian Classes [As Res v, 53]
- On Indian Weights and Measures [As Res v, 91]
- On the Religious Ceremonies of the Hindus, and of the Bráhmens especially [As Res v, 345, vii 232, 288]
- Translation of one of the Inscriptions on the Pillar at Dehlee, called the Lát of Ferroz Shah [As Res vii, 175]
- On the Sanscrit and Prácrit Languages [As Res vii, 199]
- On the Origin and Peculiar Tenets of certain Muhammedan Sects [As Res vii, 338]
- On the Védas, or Sacred Writings of the Hindus [As Res viii, 369]
- Description of a Species of Ox named Gayal [As Res viii, 487.
- Observations on the Sect of Jains [As Res ix, 287]
- On the Indian and Arabian Divisions of the Zodiack. [As Res ix, 323]
- On Olibanum or Frankincense [As Res ix, 377]
- On Sanscrit and Prácrit Poetry [As Res x, 389]
- On Ancient Monuments containing Sanscrit Inscriptions [As Res ix, 398]
- On the Sources of the Ganges in the Himádr or Emodus [As Res xi, 429]

- Colebrooke, Henry Thomas (*contd*) — On the Notions of the Hindu Astronomers concerning the Precession of the Equinoxes and Motions of the Planets [*As Res* xii 209]
- On the Height of the Himálaya Mountains [*As Res* xii 251]
- On the *Dryobalanops Camphora*, or Camphor-tree of Sumatra [*As Res* xii 537]
- Colebrooke, Major R H — On the Islands Nancoury and Comarty [*As Res* iv, 129]
- Astronomical Observations made on a Voyage to the Andaman and Nicobar Islands [*As Res* iv, 317]
- Astronomical Observations made on a Survey through the Carnatic and Mysore Country [*As Res* iv, 321]
- On the Andaman Islands [*As Res* iv, 385]
- On Barren Island and its Volcano [*As Res* iv, 397]
- On the Course of the Ganges through Bengal [*As Res* vii 1]
- Coleopterous Insects, Instructions for collecting and preserving [*Jl* i, 324]
- Colvin, A — Translations from the *Tárikh-i-Firáz Sháhí* The Reign of Ghiásuddín Tughluq [*Jl* xi, pt i, 217]
- Colvin, Colonel — On the Restoration of the Ancient Canals in the Delhi Territory [*Jl* ii, 105]
- Catalogue of a Second Collection of Fossil Bones presented to the Asiatic Society's Museum [*Jl* v, 179]
- Horary Observations taken at Dádúpur, in conformity with Sir John Herschel's Circular [*Jl* v, 299]
- Conolly, Capt Arthur — Extracts from Demi-Official Reports on a Mission into Khorasan. [*Jl* x, 116]
- Conolly, Lieut Edward — Observations upon the past and present condition of Oujein or Ujjayani. [*Jl* vi, 813]
- Note of Discoveries of Gems from Khandahar [*Jl* ix 97]
- Sketch of the Physical Geography of Seistan [*Jl* ix, 710]
- Notes on the Ensofzye Tribes of Afghanistan. [*Jl* ix, 924]
- Journal kept while travelling in Seistan [*Jl* x, 319]
- Cooper, T T. — Notes on Western China [*Proc* 1869, 143]
- Cope, Henry — Letter to the Editor, on Lichens in the Himalayas [*Jl* x, 828]
- Cope, Henry (*contd*) — A Connected View of the species of Lichens, with their Botanical relationship existing between them and the Indian productions [*Jl* x, 888,]
- Memorandum regarding the recently discovered Ruins of Ranode in Scindeah's Dominions [*Jl* xvi, 1079]
- Public Inscriptions at Lahore [*Jl* xvii 308]
- Cope, Henry; and Lewis, Henry — Some Account of the Town and Palace of Feerozabad, in the vicinity of Delhi with Introductory Remarks on the Sites of other Towns [*Jl* xvi, 971]
- See Lewis, Lieut Henry
- Corse, John — An Account of the Method of Catching Wild Elephants at Tipura [*As Res* iii, 229]
- Costello, Dr C P — Observations on the Geological Features &c of the country in the neighbourhood of Bunnoo and the Sanatorium of Shaikh Boodeen [*Jl* xxxiii 378]
- Costley, W C — On Fall of Aerolite at Sbergotty [*Proc* 1865, 194]
- Coulthard, Capt S — The Trap formation of the Sagor district, and of those districts westward of it, as far as Bhopalpur on the banks of the river Newas in Omatwara. [*As Res* xviii pt i, 47]
- Court, A — Further Information on the Topes of Manikyála being the translation of an Extract from a Manuscript Memoir on Ancient Taxila. [*Jl* iii, 556]
- Conjectures on the March of Alexander [*Jl* v 387]
- Extracts translated from a Memoir on a Map of Pesháwar and the Country comprised between the Indus and the Hydaspes the Pencilatots and Taxila of ancient geography [*Jl* v, 463]
- Collection of Facts which may be useful for the comprehension of Alexander the Great's exploits on the western banks of the Indus [*Jl* viii, 304]
- Cowell, E B — On the Swayamvara of the Ancient Hindús, and its traces in the ancient world generally [*Jl* xxviii, 31]
- On certain Mediæval Apologues [*Jl* xxix, 10]
- Attempts of Asiatic Sovereigns to establish a Paper Currency [*Jl* xxix, 183]
- On a Passage in the Tenth Book of the *Sáhitya Darpana* [*Jl* xxix, 217.]

Cowell, E B (*contd*) — The Kirānus-Sa dain of Mīr Khusrāu

[*Jl* xxix, 225

Gyges' ring in Plato and Nizāmī

[*Jl* xxx, 151

The Chārvāka System of Philosophy

[*Jl* xxxi 371

On Toles of Nudden. [*Proc* 1867, 87

Cowie, W G — Notes on some of the Temples of Kāshmir especially those not described by General A. Cunningham in his Essay published in the Journal of the Asiatic Society of Bengal for September 1845

[*Jl* xxxv, pt 1 91

Cowles, Capt C — Description of the Anglometer an instrument for working Lunar Calculations

[*Jl* 1 551

Cox, Capt Hiram — An Account of the Petroleum Wells in the Burmha Dominions, extracted from journal of a voyage from Ranghong up the river Irai-Wudder to Amarapoorah, the present capital of the Burmha Empire

[*As Res* vi, 127

On the Burmha Game of Chess, compared with the Indian, Chinese and Persian Game of the same denomination

[*As Res* vii 486

Cracroft, William — Notes relative to the Collection of some Geological Specimens in the Kasia Hills between Assam and Nanklow

[*Jl* iii, 293

On the Measurement of the Iahv Guz of the Emperor Akber

[*Jl* iii 360

Table of Multipliers for ascertuning the Deviation of a Transit Instrument from the Meridian &c

[*As Res* xv vi

Cracroft, W , and Prinsep, J — Latitude of the Hindu Observatory at Benares

[*As Res* xv, 1

Crawford, John — On the Existence of the Hindu Religion in the Island of Bali

[*As Res* viii 128

The Ruins of Prambanan in Java.

[*As Res* xiii 337

Crisp, John — An Account of the Inhabitants of the Pogy or Nassau Islands, lying off Sumatra

[*As Res* vi, 77

Cruttenden, Lieut C J — Note on the Myiætheria Somalees

[*Jl* viii 19

Cunningham, General Alexander — Correction of a Mistake regarding some of the Roman Coins found in the Tøpe at Maukila opened by M Court

[*Jl* iii 65

Notice of some Counterfeit British Coins

[*Jl* ix 39

Notes on Captain Hays' Bactrian Coins

[*Jl* ix 531

Cunningham General Alexander (*contd*) — Description of and Deductions from a consideration of some new Bactrian Coins

[*Jl* ix 867

Note to be appended to the Account of the Coins of Mavrs in the preceding article on "Some New Bactrian Coins"

[*Jl* ix 1008

Second Notice of some forged Coins of the Bactrians and Indo-Scythians

[*Jl* ix 1217

Abstract Journal of the Route to the Sources of the Punjab rivers

[*Jl* x 105

Description of some Ancient Gems and Seals from Bactria, the Punjab and India

[*Jl* x 147

A Sketch of the second Silver Plate found at Badakhshān

[*Jl* x 570

Second Notice of some new Bactrian Coins

[*Jl* xi 150

Notice of some unpublished Coins of the Indo Scythians

[*Jl* xiv 430

Journal of a Trip through Kulu and Lahul to the Chu Mureri Lake in Ladāk during the months of August and September, 1846

[*Jl* xvii pt 1 201

Memorandum detailing the Boundary between the territories of Maharaja Gulāb Singh and British India, as determined by the Commissioners P A Vans Agnew, Esq and Capt A Cunningham

[*Jl* xvii pt 1 295

Verification of the Itinerary of Hwan Thsang through Afghanistan and India with reference to Major Anderson's hypothesis of its modern compilation

[*Jl* xvii pt 1 476

Proposed Archaeological Investigation

[*Jl* xvii pt 1 535

Verification of the Itinerary of the Chinese Pilgrim Hwan Thsang, through Afghanistan and India, during the first half of the seventh century of the Christian era

[*Jl* xvii pt 1 13

An Essay on the Arian Order of Architecture as exhibited in the Temples of Kāshmir

[*Jl* xvii pt ii 241

Coins of Indian Buddhist Satraps with Greek Inscriptions

[*Jl* xxiii 679

Memorandum on the Irawadi river with a monthly register of its rise and fall from 1856 to 1858 and a measurement of its minimum discharge

[*Jl* xxix 175

Remarks on the Bactro-Pali Inscription from Taxila

[*Jl* xxxii 1 9, 12

Archæological Survey Report for 1861-62

[*Jl* xxxii (Supp No) 1

Note on the Bactro-Pali Inscription from Taxila.

[*Jl* xxxii



- Dalton, Col Ed<sup>d</sup> Tuite** (*contd*)—  
 Account of a Visit to the Jugaloo and  
 Seesee rivers in Upper Assam, to-  
 gether with a Note on the Gold  
 Fields of that Province by Major  
 Hannay [Jl xxii, 511  
 Notes on Assam Temple Ruins  
 [Jl xxiv 1  
 Notes of a Tour made in 1863-64 in  
 the Tributary Mehals under the  
 Commissioner of Chota-Nagpore  
 Bonai, Gangpore Odeypore and  
 Sirgooja [Jl xxiv, pt ii, 1  
 Notes on a Tour in Manbhoom in  
 1864-65 [Jl xxv pt i, 186  
 The "Kols" of Chota-Nagpore  
 [Jl xxv pt ii Extra No., 153  
 Brief Vocabulary of the Moondah  
 and Cognate Languages of the Kola-  
 rian type  
 [Jl xxv, pt ii, Extra No. 266  
 Rude Stone Monuments in Chutia  
 Nágpur and other places  
 [Jl xli pt i, 112  
 Letter on a large Picture representing  
 the Conquest of Palaman in 1660  
 by Daúd Khán Aurangzib's General  
 [Jl xli pt i, 240  
**Damant, G H**—Notes of Sháh Ismá'il  
 Gházi with a Sketch of the con-  
 tents of a Persian MS, entitled  
 "Risálat ush Shuhadá," found at  
 Kántá Dúár, Rangpúr  
 [Jl xli pt i, 215  
 Letter on Manipúri Alphabet  
 [Proc 1875, 17  
 Notes on Manipúri Grammar  
 [Jl xli, pt i 173  
 Note on the Old Manipúri Character  
 [Jl xli, pt i, 36  
**Dames, M Longworth**—A Grammar  
 and Vocabulary of the Balochi Lan-  
 guage [Jl xlix, pt i Extra No. 1  
 Note on Durrani Coins [Proc 1883, 96  
**Darjiling**, on the Climate of  
 [Jl vi, 308  
**Das, Sarat Chandra**—Contributions  
 on the Religion, History, &c, of  
 Tibet  
 I—The Bon (Pon) Religion  
 [Jl i, pt i, 187  
 II—Dispute between a Buddhist  
 and a Boupo Priest for the pos-  
 session of Mount Kailás and  
 the Lake Mánasa  
 [Jl i, pt i, 206  
 III—Part I Early History of  
 Tibet [Jl i, pt i 211  
 Part II Tibet in the Middle  
 Ages [Jl i, pt i 235  
 IV—Rise and Progress of Bud-  
 dhism in Tibet [Jl i pt i 1

- Das, Sarat Chandra**—(*contd*)  
 V—The Lives of the Pauchhen-  
 Rin pochhes or Tasi Lamas  
 [Jl i, pt i 15  
 VI—Life and Legend of Tson  
 Khapa (Lo ssan-tagpa), the  
 Great Buddhist Reformer  
 [Jl i, pt i 53  
 VII—Rise and Progress of Bud-  
 dhism in Mongolia (Hor)  
 [Jl i, pt i, 58  
 VIII—Rise and Progress of  
 Jin or Buddhism in China  
 [Jl i, pt i, 87  
 IX—Ancient China its Sacred  
 Literature Philosophy and  
 Religion as known to the Tibe-  
 tans [Jl i pt i, 99  
 X—Life and Legend of Nagár-  
 juna [Jl i, pt i, 115  
 XI—Detached Notices of the dif-  
 ferent Buddhist Schools of  
 Tibet [Jl i pt i 121  
**Dashwood, T**—Abstract of a Meteor-  
 ological Register kept at Mozafferpur  
 in Tirhut [Jl iii 79  
**Datta, Narasinha**—The Zafarnámah  
 a Dialogue between Aristotle and  
 Buzurjmihr translated from the  
 Persian [Jl xx, 426  
**Dauids, T W Rhys**—The Conquest  
 of South India in the Twelfth Cen-  
 tury by Parakráma Báhu the great  
 King of Ceylon [Jl xli, pt i, 197  
**Davidson, Major**—Note on the  
 Habits of the Coel and on the Dis-  
 covery of Isinglass [Jl viii, 684  
**Davis, Samuel**—On the Astronomi-  
 cal Computations of the Hindus  
 [As Res ii, 225  
 On some Roman Coins found at Nellore  
 [As Res ii, 331  
 On the Indian Cycle of Sixty Years  
 [As Res iii 209  
**Davy, Dr J**—Analysis of the Snake-  
 Stone. [As Res xiii 317  
**Dawe, William**—Memorandum of the  
 progress of sinking a Well in the  
 Bunds of Chandpur, near the foot of  
 the hills [Jl vi 52  
**Dawson, Rev James**—List of Gondi  
 Words and Phrases  
 [Jl xxxiv pt. i, 108  
 Additional Gondi Vocabulary  
 [Jl xxxix, pt i 172  
**Day, Dr Francis**—Notes on the  
 Andamanese [Proc 1870, 153  
 Notes on the genus Hara  
 [Jl xxxix pt ii 37  
 On Hamilton-Buchanan's Original  
 Drawings of Fish in the library of  
 the Asiatic Society of Bengal  
 [Proc 1871, 195







- East, Sir Edward Hyde — Abstract of an Account containing the particulars of a boring made near the river Hooghly in the vicinity of Calcutta, from May to July 1811, inclusive, in search of a spring of pure water [*As Res* xii, 542]
- Eustwick, Capt J B — A Vocabulary of the Scinde Language [*Jl* xii, 1]
- Economic Geology, Correspondence respecting the Society's Museum of [*Jl* xi, 126]
- Edgeworth, M P — Register of the Weather at Futtelgurh (Lat 27° 21' N Long 79° 7' E) from April 1842 to October 1843 [*Jl* iii, 16]
- Register of the Thermometer at Ambala for 1844 [*Jl* iv, 405]
- Botanico Agricultural Account of the Protected Sikh States [*Jl* vii, 751]
- Grammar and Vocabulary of the Cashmiri Language [*Jl* x, 1038]
- Note to the Botanico Agricultural Account of the Protected Sikh States [*Jl* xi, 26]
- Observations on the Genus *Spathium* [*Jl* xi, 145]
- A Couple of Hours' Herborization at Aden [*Jl* xvi, 1211]
- Report on the Statistics of Banda [*Jl* xix, 89]
- Catalogue of Plants found in the Banda district, 1847—49 [*Jl* xxi, 24]
- Catalogue of Plants found in the Banda district 1847—49 [*Jl* xxi, 151]
- Abstract of a Journal kept by Mr Gardner during his travels in Central Asia, with a Note and Introduction [*Jl* xxii, 283]
- Description of Mohzarkhala in the Kohistan of the Western Huzara, extracted from the Journal of Mr A Gardiner [*Jl* xxii, 383]
- Notes on the Sources of the Abi Mai, or Amoo or Oxus, extracted from the Journal of Mr E Gardiner [*Jl* xxii, 431]
- Egerton, R E — Note on Earthquake in Murwut [*Proc* 1869, 163]
- Elephant, The Osteology of the (From India Sporting Review) [*Jl* xiii, 915]
- Eliot, John — Observations on the Inhabitants of the Garrow Hills, made during a Publick Deputation in the years 1788 and 1789 [*As Res* iii, 17]
- Ellis, Francis — Account of a Discovery of a modern imitation of the Védas, with Remarks on the genuine works [*As Res* xiv, 1]
- Ellis, R R M — On Recorded Solar Eclipse [*Proc* 1867, 172]
- Elliot, Walter — On Bos Gaurus [*Jl* x, 579]
- Observations on the Language of the Goonds, and the identity of many of its terms with words now in use in the Telugu, Tamil and Canarese [*Jl* xvi, 1140]
- Comparative List of Upanishads [*Jl* xx, 607]
- Elliott, H M — Reports upon His Majesty the King of Oude's Observatory at Lucknow Communicated [*Jl* xvii, pt 4, 507]
- Elliott, J B — Note on an Inscription found near the Kesariah Mound, in Tirhut [*Jl* iv, 286]
- Elmslie, Dr W J — List of Words and Phrases to be noted and used as test words for the discovery of the radical affinities of languages and for easy comparison, drawn up by Mr Justice Campbell Translated into Kashmiri [*Jl* xxxix, pt 1, 95]
- Emmott, J — Extracts from a Journal kept while visiting the Sapan Forests [*Jl* i, 544]
- Erhardt, Rev — Letter regarding so called Wolf-children in the Secundra Orphanage [*Proc* 1873, 155]
- Euphrates, A general statement of the Labors and Proceedings of the Expedition to the under the command of Colonel Chesney [*Jl* v, 675]
- Evans, Dr George — Examination of a Mummy Head supposed to be brought from Egypt by Lieutenant Archbold [*Jl* iv, 822]
- Note on a Specimen of the Bos Gaurus [*Jl* vi, 223]
- Note on a Species of *Arctonix* from Arracan [*Jl* vii, 732]
- Note on the New Zealand Caterpillar [*Jl* vii, 787]
- Note on the Dissection of the *Arctonix* Collaris, or Sand Hog [*Jl* viii, 408]
- Evans, Lieut — See Keatinge, Lieut
- Evaporation in Calcutta Daily rate of [*Jl* xvii, pt 1, 236]
- Everest, Captain G — On the Formulæ for calculating Azimuth in Trigonometrical Operations [*As Res*, xviii, pt 11, 93]
- On the Compensation Measuring Apparatus of the Great Trigonometrical Survey of India [*As Res* xviii, pt 11, 189]

Everest, Rev Robert—Memorandum on the Fossil Shells discovered in the Himalayan Mountains

[*As Rec* xviii pt ii 107

Note on Indian Saline Deposits

[*Jl* i 149

Some Observations on the quantity of earthy matter brought down by the Ganges river

[*Jl* i 28

Remarks on a Lignite Paper in the Asiatic Journal on the Gypsum of the Himalaya

[*Jl* i 450

[*As Rec* xviii pt ii 107

Some Additional Observations on the quantity of earthy matter brought down by the Ganges its depth and velocity made during the rainy season of 1862 at Ghazipur

[*Jl* i 549

Some Geological Remarks made in the country between Mirzapur and Seor and from Seor northwards to the Jamma

[*Jl* i 475

On the Climate of the Fossil Elephant

[*Jl* iii 18

On the Influence of the Moon on Atmospheric Phenomena

[*Jl* iii 747

Further notice of the Influence of the Moon on Atmospheric Phenomena

[*Jl* iii 631

On the Amount of Rainfall at Calcutta as affected by the Declination of the Moon

[*Jl* iv 207

On the Temperature of Deep Wells to the West of the Jamma

[*Jl* iv 229

Comparison of the Heights of the Barometer with the distance of the Moon from the Celestial Equator

[*Jl* iv 252

Geological Observations made in a Journey from Mussoree (Musuri) to Gungotree (Gangotri)

[*Jl* iv, 690

On the Revolution of the Seasons

[*Jl* v 281

Continuation of a Paper (Journal, May 1865), on the Heights of the Barometer as affected by the position of the Moon

[*Jl* v, 585

On the Revolution of the Seasons

[*Jl* vi 303, vii 192

Remarks upon the Rain and Drought of the last eight seasons in India

[*Jl* viii, 313

Ewer, Walter—An Account of the Cootub Minar and the Inscriptions in its vicinity

[*As Rec* xix, 480

Fairbank, Rev S B—The Ravages of Rats and Mice in the Dakhan during the Harvest of 1878-79

[*Jl* xlviii, pt ii, 143

Falconer, Dr Hugh—On the Aptitude of the Himalayan Range for the Culture of the Tea Plant

[*Jl* iii 178

Note on the Occurrence of Fossil Bones in the Sewalik Range eastward of Hardwar

[*Jl* vi 233

On Additional Fossil Species of the order Quadrumana from the Sewalik Hills

[*Jl* vi 351

Letter to the Secretary of the Asiatic Society on the Cataclysm of the Indus

[*Jl* x 615

Falconer Dr Hugh, and Cautley, Capt P T

Sivatherium Giganteum a new Fossil Ruminant Genus from the valley of the Markanda, in the Sivahik Branch of the Sub Himalayan Mountains

[*As Rec* xix pt i, 1

Note on the Fossil Hippopotamus of the Sivahik Hills

[*As Rec* xix, pt i, 39

Note on the Fossil Camel of the Sivahik Hills

[*As Rec* xix pt i 115

Note on the Felis Cristata a new Fossil Tiger from the Sivahik Hills

[*As Rec* xix pt i, 135

Sivatherium Giganteum, a new Fossil Ruminant Genus from the valley of the Markanda in the Sivahik Branch of the Sub Himalayan Mountains

[*Jl* v, 38

See Cautley, Capt P T

Farquhar, Major W—Account of a new species of Tapir found in the Peninsula of Malacca

[*As Rec* xiii, 417

Fasson, J H—A Report on a Whirlwind which occurred in the Maimansingh district on the 26th March

[*Proc* 1875, 103

Fattapoer and Sjatnapoer, Note on the (probable) identity of, in Van den Broucke's Map of Bengal with Fathpur and Jatrapur, in the Jessore District

[*Proc* 1874, 19

Fayrer, Dr J—On proposed Ethnological Exhibition

[*Proc* 1866, 81

Fedden, F—On Fire flies

[*Proc* 1866 19

Remarks on Shells found at Káthiáwar

[*Proc* 1881, 124

Feistmantel, Dr Ottokar—Contributions towards the knowledge of the Indian Fossil Flora On some Fossil Plants from the Dumadar Series in the Raniganj Coalfields, collected by Mr J Wood-Mason

[*Proc* 1876, 223

A Sketch of the History of the Fossils of the Indian Gondwana System

[*Jl* i, pt ii, 168

- Fell, Capt E — Sanscrit Inscriptions, with remarks by H H Wilson  
[*As Res* xv 436]
- Fenwick, Capt — Journal of a passage down the Nerbudda, from Chikuldah to Baroach with notices of the most important obstructions to the Navigation [*Jl* xviii, 461.  
Journey of the Passage from the Dharee Falls to the Hiraphal  
[*Jl* xvii, pt ii, 210]
- Ferrar, M L — Letter regarding the Birthplace of Todar Mall  
[*Proc* 1871, 178  
Letter on further particulars regarding Rájah Todar Mall  
[*Proc* 1872, 35]
- Finnis, Lieut John — A Summary Description of the Geology of the country between Hoshungabad on the Nerbudda and Nagpoor by the direction of Bartool [*Jl* iii, 71]
- Firuz Shah Zafar son of Firúz Sháh of Delhi, Note on a Gold Coin bearing the name of Prince  
[*Jl* xi pt. i, 160]
- Fisher, F H — Geological Sketch of Masúri and Landour in the Himalaya, together with an abstract of the Thermometrical Register kept at Landour during the year 1831  
[*Jl* i 193]
- Fisher, Capt — Memoir of Sylhet Kachar, and the adjacent districts  
[*Jl* ix 808]
- Fleming, Dr John — A Catalogue of Indian Medical Plants and Drugs, with their Names in the Hindustání and Sanscrit languages  
[*As Res* xi, 153]
- Flemming, Dr Andrew — Report on the Salt Range, and on its Coal and other Minerals [*Jl* xvii pt ii 500  
Diary of a Trip to Pind Dadun Khan and the Salt Range [*Jl* xviii 661  
Report on the Geological Structure and Mineral Wealth of the Salt Range in the Punjab  
[*Jl* xxi, 229 333 444  
Notes on the Iron Ore of Korana in the Jetch Doab of the Punjab, with a qualitative analysis of the same  
[*Jl* xxiii 92]
- Floyd, J — Account of the Hurricane or Whirlwind of the 8th April 1838 [*Jl* vii 422]
- Foley, Capt Wm — Journal of a Tour through the Island of Rambree with a Geological Sketch of the Country and Brief Account of the Customs, &c., of its Inhabitants  
[*Jl* iv, 20]
- Foley, Capt Wm (*contd*) — Journal of a Tour through the Island of Rambree, with a Geological Sketch of the Country and Brief Account of the Customs, &c., of its inhabitants  
[*Jl* iv 82  
Journal of a Tour through the Island of Rambree (Rumri, Sans Ramavati), on the Arracan Coast  
[*Jl* iv 199  
Notes on the Geology &c of the Country in the neighbourhood of Maulamyeng (vulg Moulmein),  
[*Jl* v, 269  
Note on a Remnant of the Hun Nation  
[*Jl* v. 813]
- Fontana, Nicolas — On the Nicobar Isles and the Fruit of the Melleri  
[*As Res* iii, 149]
- Forbes, Capt J — Notes on the Bud-dhas from Ceylonese Authorities, with an attempt to fix the dates of the appearance of the last four, being those of the Maha Bhadra Kalpa (or present age) [*Jl* v, 321]
- Forbes, L R — Letter regarding the Mughul Invasions of Palaman  
[*Jl* xi, pt i, 129]
- Ford, Major. — Report on Barren Island  
[*Proc* 1866, 212.]
- Forlong, Capt J G — See Fraser, Capt Alex
- Forrest, R E — On Rock Inscriptions near Khalsi  
[*Proc* 1866, 199.]
- Foster J M — Note on Gharáon, Asám  
[*Jl* xli, pt i 32  
The Temple of Jayságar, Upper Asám  
[*Jl* xlii, pt i, 311]
- Foulkes, Rev Thomas — Extracts from letters regarding three sets of Copper Sasauams discovered in the Vizagapatam district  
[*Jl* xxxix, pt i 151]
- Fowke, Francois — On the Viná or Indian Lyre  
[*As Res* i, 295]
- Franklin, Capt James — On the Geology of a portion of Bundelkhand, Boghelkhand, and the districts of Sagur and Jebelpur  
[*As Res* xviii pt i 27  
On the Diamond Mines of Pauna in Bundelkhand  
[*As Res* xviii, pt i, 160]
- Franklin, Lieut William — An Account of the present state of Delhi  
[*As Res* i, 412]
- Fraser, Capt Alex, and Forlong, Capt J G — Report on a Route from the mouth of the Palchaon to Krau, and thence across the Isthmus of Krau to the Gulf of Siam  
[*Jl* xxxi, 247]



- Gibbs, Hon James (*contd*)—  
Exhibition of a Drawing and Estampage of two enormous Gold Coins  
[*Proc* 1883, 3  
Exhibition of some rare Muhammadan Coins  
[*Proc* 1883, 4  
Exhibition of some Gold Ramtinkis, and note thereon  
[*Proc* 1883, 76
- Gilchrist, John — Account of the Hindustanee Horometry  
[*As Res* v 81
- Gill, Major — Extracts from Notes on Hemadpauti Temples, &c made during a tour through a portion of West Berar in 1868, 1869 and in May 1871  
[*Proc* 1873 66
- Girdlestone, C E R — Letter forwarding a copy of the plan of encampment used at the Installation of the Dalai Lama  
[*Proc* 1879, 275  
On Medal sent by Mr Gennoe  
[*Proc* 1880 172
- Giuseppe, Father — An Account of the Kingdom of Nepal  
[*As Res* ii 307
- Glasfurd, Capt C — Extract from a Report of the Dependence of Bustar  
[*Jl* xxxiii, 44
- Glasfurd, Lieut John — Report on the Progress made up to the 1st May 1839 in opening the experimental Copper Mine in Kumaon  
[*Jl* viii 471
- Godwin-Austen, Lt-Col H H —  
On the System employed in Outlining the Figures of Deities and other Religious Drawings as practised in Ladak, Zaskar &c.  
[*Jl* xxxiii, 151  
Description of a Mystic Play, as performed in Ladak Zaskar &c  
[*Jl* xxxiv, pt. i 71  
Notes on the Sandstone Formation &c, near Buxa Fort, Bhootan Doars.  
[*Jl* xxxiv, pt ii, 106  
A Vocabulary of English Balti and Kashmiri  
[*Jl* xxxv, pt i 233  
Notes on the Pangong-lake, district of Ladakh, from journal made in 1863  
[*Jl* xxxvii pt ii 84  
Figures of the species of *Diplommatina* Benson, hitherto described as inhabiting the Himalayas, Khasi Hills and Burmah, etc  
[*Jl* xxxvii, pt ii, 83  
Notes on Geological Features of the country near foot of hills in the Western Bhootan Doars  
[*Jl* xxxvii pt ii, 117
- Godwin-Austen, Lt-Col H H (*contd*)—Notes to accompany a Geological Map of a portion of the Khasi Hills near Longitude 91° E  
[*Jl* xxxviii pt ii, 1  
Notes from Assaloo North Cachar on the great earthquake January 10th, 1869  
[*Proc* 1869, 91  
Notes on the Geology and Physical Features of the Jaintia Hills  
[*Jl* xxxviii pt ii, 151  
Descriptions of New Species of *Diplommatinae* from the Khasi Hills  
[*Jl* xxxix pt ii, 1  
A List of Birds obtained in the Khasi and North Cachar Hills  
[*Jl* xxxix, pt ii, 91  
Second List of Birds obtained in the Khasi and North Cachar Hill ranges including the Garo Hills and country at their base in the Nymensing and Sylhet districts  
[*Jl* xxxix pt ii, 264  
Descriptions of the Species of *Alycaeus* known to inhabit the Khasi Hill ranges  
[*Jl* xl pt ii 87  
Third List of Birds obtained in the Khasi and Garo Hill ranges with some corrections and additions to the former lists  
[*Jl* xli, pt ii 142  
On the Ruins at Dimápúr on the Dunsiri river, Assam  
[*Jl* xliii, pt i 1  
Descriptions of New Species of Mollusca of the genera *Helix* and *Glossula* from the Khasi Hills and Manipur  
[*Jl* xliii pt ii 1  
Descriptions of four New Species of Mollusca belonging to the family *Zonitidae* from the N E Frontier of Bengal with drawings of *Helicariogigas*, Benson, and of a variety of the same.  
[*Jl* xliii pt ii 4  
Descriptions of New Operculated Landshells belonging to the genera *Craspedotropis*, *Alycaeus* and *Diplommatinae*, from the Naga Hills and Assam  
[*Jl* xliii pt ii 7  
Notes on the Geology of part of the Daffa Hills Assam, lately visited by the Force under Brigadier General Stafford  
[*Jl* xliii, pt. ii 55  
Descriptions of nine Species of *Alycaeus* from Assam and the Naga Hills  
[*Jl* xliii pt ii 145  
Fourth List of Birds principally from the Naga Hills and Manipur including others from the Khasi Garo, and Tipperah Hills  
[*Jl* xliii pt ii 151  
Exhibition of a Celt found at Shillong  
[*Proc* 1875, 155  
The Evidence of past Glacial Action in the Nágá Hills Assam  
[*Jl* xliii, pt ii 209

- Godwin-Austen,\* Lt-Col H H  
(*contd*)—List of the Birds collected  
on the Expedition into the Daffa  
Hills Assam together with those  
obtained in the adjacent Darrang  
Territory [Jl xlv pt ii 64]
- On the *Cyclostomacia* of the Daffa  
Hills Assam [Jl xlv pt ii, 171]
- Remarks on Himalayan Glaciation  
[Proc 1877 4]
- Some Notes on the Genera *Pellorneum*  
and *Pomatorhinus*, with a descrip-  
tion of a variety of *Chlenasius*  
*capiceps* Blvth [Proc 1877 146]
- Descriptions of three new Species of  
Birds of the Genera *Ictoloneum*  
*Actimura* and *Pomatorhinus* lately  
collected in the neighbourhood of  
Saddya Assam by Mr M J Ogle  
of the Topographical Survey  
[Jl xlv pt ii 43]
- Sixth List of Birds from the Hill  
Ranges of the North-East Frontier  
of India [Jl xlvii, pt ii 12]
- On new species of the Genus *Plecto-*  
*pylis* of the Family *Helicidae*  
[Jl xlviii pt ii 1]
- Notes on and Drawings of the Animals  
of various Indian Land Mollusca  
(*Pulmonifera*) [Jl xlix pt ii 151]
- Notes on and Drawings of the Animals  
of various Indian Land Mollusca  
(*Pulmonifera*) [Jl li pt ii, 68]
- Gold Dust from the Sand of the  
Ningthee River, on the frontier of  
Manipur, Mode of extracting the  
[Jl i 148]
- Goldingham, J —Some Account of the  
Cave in the Island of Elephanta  
[As Res iv 409]
- Some Account of the Sculptures at  
Mahablipoorum usually called the  
Seven Pagodas [As Res v, 69]
- Golubief, Capt —Observations on the  
Astronomical Points determined by  
the brothers Schlagintweit in Cen-  
tral Asia [Jl xxxv pt ii 46]
- Goodwyn, Major Henry —Memoir on  
the application of Asphaltic Mastic  
to Flooring, Roofing, and Hydraulic  
works in India [Jl xii 534]
- A Resultant System for the Construc-  
tion of Iron Tension Bridges  
[Jl xvii, pt ii 412]
- Gojrat District in 1858 Table of  
the Coins of former Governments  
more or less current in the Bazars  
of the [Jl xxxiii, 434]
- Gordon, Dr C A —Report on the Dust  
Whirlwinds of the Punjab  
[Jl xxiii 364]
- Notes on the Topography of Murree  
[Jl xxiii, 461.]
- Gordon, G J —Memorandum of an  
Excursion to the Tea Hills which  
produce the description of Tea  
known in commerce under the  
designation of Ankoy Tea  
[Jl iv, 95]
- Journal of an attempted Ascent of the  
river Min to visit the Tea Planta-  
tions of the Fukin Province of  
China [Jl iv 563]
- Gowan, Capt W E —Geographical  
information regarding the Kirghiz  
Steppes and Country of Turkistan  
afforded by the Book of the Great  
Survey Translated from the  
Russian [Proc 1879, 222]
- Graham, Capt —Report on the Agri-  
cultural and Land Produce of Shoa  
[Jl xiii 253]
- Report on the Manners Customs and  
Superstitions of the people of Shoa,  
and on the History of the Abyssinian  
Church [Jl vii 625]
- Grange, E R —Extracts from the  
Narrative of an Expedition into the  
Naga Territory of Assam  
[Jl viii 445]
- Grange, Lieut —Extracts from the  
Journal of an Expedition into the  
Naga Hills on the Assam Frontier  
[Jl ix 947]
- Granges, Baron Otto des —Short  
Survey of the Countries between  
Bengal and China showing the  
great Commercial and Political im-  
portance of the Burmese town of  
Bhamo on the Upper Irawady and  
the practicability of a direct trade  
overland between Calcutta and  
China [Jl xvii pt. i 132]
- Grant, Capt F T —Progress of the  
Boring for Coal at Jamutra in  
Cutch [Jl iii 40]
- Extract from a Journal kept by Cap-  
tain F T Grant of the Manipur  
Levy during a Tour of Inspection  
of the Manipur Frontier, along the  
course of the Ningthee river, &c,  
in January, 1832 [Jl iii, 124.]
- Grant, Capt P W —On a new  
Method of determining the Longi-  
tude, from the observed Interval  
between the Transit of the Moon's  
Enlightened Limb, and that of the  
Sun, or of one or more Stars  
[As Res vi, 235]
- Gray, J J —On a simple Method of  
Manipulation in the Calotype pro-  
cess [Jl xxiv, 287]
- Greenlaw, C B —Note to accompany  
a Map of the Isle St. Martin's  
[Jl xi, 309]





- Gubbins, Charles — Mode of Manufacture of the Silumba Salt of Upper India [Jl vii 363]  
 Daily Register of Temperature during a part of 1850, at Meeruth, in the Upper Doab [Jl xxi 562a.  
 Notes on the Ruins at Mahabalipuram on the Coromandel Coast [Jl xxii, 656]
- Gurdial Singh Sirdar — Memorandum on the Superstitions connected with Child-birth, and precautions taken and rites performed on the occasion of the birth of a child among the Jats of Hoshiyarpur in the Panjab [Jl li, pt 1 205]
- Haidinger, Dr W — Report on the Shalka Futtehpore, Pegu Assam and Segowlee Meteorites sent from the Asiatic Society of Bengal (Calcutta) to the Imperial Museum of Vienna. [Jl xxx, 129]
- Haines, Capt S B — Ancient Inscription found at Aden [Jl xi, 958]
- Haldar, Rakhal Das — On Temples near the Barakar river [Proc 1866, 73]  
 Notes on a Copper-plate Inscription in the possession of certain Kols [Proc 1869 203]  
 An Introduction to the Mundari Language [Jl xl, pt. 1 46]  
 Notes on three Inscriptions on stone found in Chutia Nagpur [Jl xl, pt. 1 108]
- Hall, Dr Fitz-Edward — Hindi and Urdu-Hindi Tazkiras [Jl xvii pt 1, 541]  
 A Passage in the life of Válmiki [Jl xxiii 494]  
 Of two Edicts bestowing Land, recorded on plates of copper [Jl xxvii 217]  
 A few Remarks on the first Fasciculus of Professor Wilson's Sanskrit Dictionary as "extended and improved" by Dr Goldstucker [Jl xxvii, 301]  
 Decipherment of a Sanskrit Inscription dated in the fourteenth century, with a translation and notes [Jl xxviii 1]  
 Fragments of three early Hindu Dramatists, Bhasa, Ramila, and Somila [Jl xxviii 28]  
 The S'ri-súktá, or Litany to Fortune, text and commentary with translation [Jl xxviii, 121]  
 Two Letters on Indian Inscriptions [Jl xxxx, 18]
- Hall, Dr Fitz-Edward (*contd*) — Of two Land-grants issued by king Hastin bearing date in the years 156 and 163 after the Subversion of the Guptas [Jl xxx, 1]  
 The Inscriptions of Erikaina, now Eran, re deciphered and re translated [Jl xxx, 14]  
 Note on Budhagupta [Jl xxx 199]  
 A Donative Inscription of the Tenth Century the Sanskrit Original and its Substance in English with Remarks on the later Kings of Dhára in Malaya [Jl xxx 195]  
 Decipherment of an Inscription from Chedi with a brief Statement of the Historical and other Indications therefrom derived [Jl xxx 317]  
 Letter to the Secretary of the Asiatic Society of Bengal, on some Recent Statements touching certain of the Gupta Kings and others [Jl xxx, 383]  
 Vestiges of Three Royal Lines of Kanyakubja, or Kánouj, with Indications of its Literature [Jl xxxi 1]  
 Three Sanskrit Inscriptions Copies of the Originals, and Prefatory Observations [Jl xxxi, 111]  
 Rávana's Commentary on the Rig Veda [Jl xxxi, 129]  
 Notes on the Eran Inscription being extracts from a letter to the Editor [Jl xxxiv, pt. 1, 38]
- Halstead, Ed P — Report on the Island of Chedooaba [Jl x, 349]  
 Report on the Island of Chedooaba [Jl x, 419]
- Hamilton, Lieut Charles — A Description of the Máhwah Tree [As Res i, 300]
- Hamilton, G — A short Description of Carnicobar [As Res ii, 337]
- Hamilton, R N C — Note on the Transport of Coal from the pits at Sonadeh to Bombay, by the Nerbudda [Jl xvii, 594]
- Hamilton, Sir R — Table of Heights and Distances along the proposed line of Railway from Surat to Agra [Jl xxv 221.]
- Hammer, Baron Joseph Von — Extracts from the Moht that is the Ocean a Turkish Work on Navigation in the Indian Seas [Jl iii 545, v 411, vi 805, vii 767, viii, 823]
- Hannay, Lieut-Col S F — Further information on the Gold Washings of Assam [Jl vii, 625]  
 A Short Account of the Moa Morah Sect and of the Country at present occupied by the Bor Senaputtee. [Jl vii, 671]





- Hill, S. A. (*contd*)—Hindu Antiquities, Photographs of, in Java [*Proc* 1873, 153]
- Hindu Coins, Ancient, from Jyampur and Oojein [*Jl* vii, 1052]
- Hiranand Pandit — See KITTOE, CAPT M
- Hislop, Revd Stephen — On the age of the Coal Strata in Western Bengal and Central India [*Jl* xxiv, 347]
- Hodgson, B. H. — Notices of the Languages, Literature and Religion of the Bauddhas of Nepal and Bhot [*As Res* xvi, 409]
- Route from Cathmandu in Nepal to Tizedx, on the Chinese Frontier, with some occasional allusions to the manners and customs of the Bhotials, by Amir, a Cashmire-Bhotiah by birth, and by vocation an interpreter to the traders on the route described. [*As Res* xvii, 513.]
- On a New Species of *Buceros* [*As Res* xviii, pt 1, 178]
- On a Species of *Aquila cinæctus* and *Dicæurus* [*As Res* xviii, pt 1, 13.]
- On the Migration of the *Natatores* and *Grallatores*, as observed at Kathmandu [*As Res* xviii, pt 1, 122]
- The Wild Goat, and the Wild Sheep, of Nepal. [*As Res* xviii, pt 1, 129]
- On the Ratwa Deer of Nepal [*As Res* xviii, pt 1, 139]
- Description of the *Buceros Honrai* of the Himalaya [*As Res* xviii, pt 1, 169]
- Description of the Wild Dog of the Himalaya [*As Res* xviii, pt 1, 221.]
- Indication of a New Genus of the Carnivora, with description of the species on which it is founded [*As Res* xix, pt 1, 60]
- Description of Three New Species of *Paradoxurus*, inhabiting the Southern, Central and Northern Regions of Népál respectively, with notices of the habits and structure of the Genus [*As Res* xix, pt 1, 72]
- Notices of the Ornithology of Népál [*As Res* xix, pt 1, 143]
- On the Administration of Justice in Népál, with some account of the several Courts, extent of their jurisdiction, and modes of procedure [*As Res* xx, pt 1, 94]
- On the Native Method of making the Paper, denominated in Hindustan, Nipalese [*Jl* 1, 8]
- Further Illustrations of the Antelope Hodgsonu. [*Jl* 1, 59.]
- Hodgson, B. H. (*contd*) — Note relative to the account of the *Cervus jará*, published in the *Gleanings*, No 34 [*Jl* 1, 66.]
- On the Mammalia of Nepal. [*Jl* i, 335]
- Origin and Classification of the Military Tribes of Nepal [*Jl* ii, 217]
- Note on the Chiru Antelope [*Jl* iii, 138.]
- Classification of Népáls or Aborigines of Népál Proper, preceded by the most authoritative Legend relative to the Origin and Early History of the Race [*Jl* iii 215]
- European Speculations on Buddhism [*Jl* iii, 382]
- Further Remarks on M. Remusat's Review of Buddhism [*Jl* iii, 425]
- Notice of some Ancient Inscriptions in the Characters of the Allahabad Column. [*Jl* iii, 481.]
- Remarks on M. Remusat's Review of Buddhism [*Jl* iii, 499.]
- Account of a Visit to the Ruins of Simroun, once the capital of the Mithila province [*Jl* iv, 121]
- Remarks on an Inscription in the Ranja and Tibetan (Üchhén) Characters, taken from a Temple on the confines of the valley of Nepal [*Jl* iv, 196]
- Further Note on the Inscription from Sárnáth [*Jl* iv, 211]
- Description of the Bearded Vulture of the Himálaya. [*Jl* iv, 454.]
- On the Red-billed Eroha. [*Jl* iv, 458, 701]
- Synopsis of the Thár and Ghorál Antelopes [*Jl* iv 487]
- On the Wild Goat and Wild Sheep of Himálaya, with remarks on the genera, capra and ovis [*Jl* iv, 490.]
- Specific Description of a new species of *Cervus* [*Jl* iv, 649]
- Synopsis of the *Vespertilionide* of Nipal [*Jl* iv, 699]
- Description of the little Musteline animal denominated Káthish Nyul in the Catalogue of the Népálese Mammalia [*Jl* iv, 702]
- Postscript to the Account of the Wild Goat of Nepal [*Jl* iv, 710]
- Quotations from original Sanscrit authorities in proof and illustration of Mr Hodgson's Sketch of Buddhism. [*Jl* v, 28, 71.]
- Description of a new species of Columba [*Jl* v, 122]
- Summary description of some new species of *Falconide* [*Jl* v, 227.]

Hodgson, B H (*contd*)—Synoptical description of sundry new animals enumerated in the Catalogue of Nepalese Mammals [Jl v, 231]  
 Description of two new species belonging to a new form of the Meruline Group of Birds, with indication of their generic character [Jl v, 358]  
 On a new genus of the *Meropidae* [Jl v, 360]  
 On a new Piscatory genus of the Strigine Family [Jl v 362]  
 Postscript to the account of *Ursitaxus* printed in the 19th volume of Researches As Soc. [Jl v 671]  
 Note on Zoological Nomenclature. [Jl v 751]  
 Additions to the Ornithology of Népal [Jl v 770]  
 On three new genera or sub-genera of long-legged Thrushes, with description of their species [Jl vi, 101]  
 Description of three new species of Woodpecker [Jl vi 104]  
 Indication of a new genus of Inses-sorial Birds [Jl vi, 110]  
 On a new genus of the *Sylviadae* with description of three new species [Jl vi 230]  
 On some new genera of *Raptora*, with remarks on the old genera. [Jl vi 361]  
 New species of *Scelopacidae*, Indian Snipes. [Jl vi, 489-]  
 On a new genus of *Plantigrades* [Jl vi. 560]  
 Note on the Primary Language of the Buddhist writings [Jl vi. 682]  
 On the Bibos Gurū Gurū or Gurūkā Gan of the Indian Forests [Jl vi 745]  
 On a new species of Pheasant from Tibet [Jl vii 863]  
 On a new genus of the Fissirostral Tribe [Jl vii 35]  
 Two new species of Meruline Birds [Jl vii 97]  
 On Cuculus [Jl vii 136]  
 On three new species of Musk (*Moschus*) inhabiting the Himalayan districts [Jl vii 202]  
 Summary Description of four new species of Otter [Jl vii, 319]  
 A Cursive Notice of Nayakote [Jl ix 1114]  
 On the Common Hare of the Gangetic Provinces and of the Sub-Himalaya with a slight notice of a strictly Himalayan species [Jl ix 1183]  
 Three new species of Monkey with remarks on the genera *Semnopithe-cus* et *Macacus* [Jl ix, 1211]

Hodgson, B H (*contd*)—Classical Terminology of Natural History [Jl x, 26]  
 On the two Wild Species of Sheep inhabiting the Himalayan region, with some brief remarks on the craniological character of *Ovis*, and its allies [Jl x. 230]  
 Note on the *Cervus Elaphus* (?) of the Sal Forest of Nepāl, *Hodie C Affinis nob* [Jl x. 721]  
 Notice of the Marmot of the Himālaya and of Tibet [Jl x 777]  
 On a new Organ in the Genus *Moschus* [Jl x 795]  
 Of a new species of *Lagomys* inhabiting Nepal (with Plate)—*Lagomys Nepalensis*, Nob [Jl x. 854]  
 Notice of a new form of the *Glaucopinae* or *Rasorial* Crows, inhabiting the Northern region of Nepal—*Conostoma Æmodius* (*Nobis* type) [Jl x, 856]  
 Classified Catalogue of Mammals of Nepal (corrected to the end of 1841, first printed in 1832) [Jl x 907]  
 Notice of the Mammals of Tibet, with descriptions and plates of some new species [Jl xi 278]  
 Description of a new genus of *Falconidae*. [Jl xii, 127]  
 Translation of the *Nipālīya Devutā Kalyānī* with Notes [Jl xii. 400]  
 Notice of two Marmots inhabiting respectively the plains of Tibet and the Himalayan Slopes near to the Snows and also of a *Rhinolophus* of the central region of Nepal [Jl xii, 409]  
 Additions to the Catalogue of Nepal Birds [Jl xii 447]  
 On a new species of *Cervus Cervus* *Dimorphé*. [Jl xii, 897]  
 Summary Description of two new species of Flying Squirrel. [Jl xiii 67]  
 Description of a new species of Tibetan Antelope with Plates [Jl xv 334]  
 On a new form of the Hog kind or *Suidæ*. [Jl xvi 423]  
 On the Hispid Hare of the Saul forest [Jl xvi. 572]  
 Postscript on the Pigmy Hog of the Saul forest. [Jl xvi 593]  
 On Various Genera of the Ruminants [Jl xvi 685]  
 On the Tibetan Badger, *taxidia leucurus* N S [Jl xvi 763]  
 On a new species of Porcupine [Jl xvi. 771]  
 On the Charj or *Ovis bengalensis* [Jl xvi. 883]

- Hodgson, B H (*contd*)—The Slaty-blue Magaderme, *Magaderma schistacea*, N S [Jl xvi, 889  
On a new species of *Plecotus* [Jl xvi, 894  
On the tame Sheep and Goats of the sub-Himálayas and of Tibet [Jl xvi, 1003  
On the Cat-toed Subplantigrades of the sub-Himálayas [Jl xvi, 1113  
On the Aborigines of the sub-Himálayas. [Jl xvi, 1235.  
Comparative Vocabulary of the several Languages or Dialects of the Eastern sub-Himálayas, from the Káli or Ghógrá, to the Dhansri, with the written and spoken Tibetan for comparison [Jl xvi, 1245  
Addenda et Corrígenda of the Paper on the Aborigines of the sub-Himálayas, in the December No of the Journal. [Jl xvii, pt 1, 74  
Ethnography and Geography of the sub-Himálayas [Jl xvii, pt 1, 544  
Tibetan type of Mankind [Jl xvii, pt 11, 222  
Relics of the Catholic Mission in Tibet. [Jl xvii, pt 11, 225  
Anatomy of *Ailurus*, *Porcula*, and *Stylocerus* in continuation, with sundry miscellaneous emendatory Notes [Jl xvii, pt 11, 475  
The Aborigines of Central India [Jl xvii, pt 11, 550  
Addendum on the Anatomy of *Ailurus* [Jl xvii, pt 11, 573  
Route from Káthmándú, the capital of Nepal, to Darjeeling in Sikim, interspersed with remarks on the people and country [Jl xvii, pt 11, 634  
Memorandum relative to the seven Cósís of Nepal [Jl xvii, pt 11, 646  
On the Chépáng and Kúsúnda Tribes of Népal [Jl xvii pt 11 650  
A Brief Note on Indian Ethnology [Jl xviii, 238  
Aborigines of Southern India [Jl xviii, 350  
The Polecat of Tibet, N S [Jl xviii, 446  
On the Aborigines of North-Eastern India [Jl xviii, 451  
On the Origin, Location, Numbers, Creed, Customs, Character and Condition of the Kóoch, Bodo and Dhimál People, with a general description of the climate they dwell in [Jl xviii, 702  
On the Physical Geography of the Himálaya [Jl xviii, 761  
On the Aborigines of the Eastern Frontier [Jl xviii, 967

- Hodgson, B H (*contd*)—On the Tákin of the Eastern Himálaya, *Budorcas Taxicolor mihú*, N G. (With three Plates) [Jl xix, 6  
Aborigines of the North-East Frontier [Jl xix, 309  
Aborigines of the South [Jl xix, 461  
On the Shou or Tibetan Stag [Jl xix, 466  
Additional Notice of the Shou or Tibetan Stag [Jl xix, 518  
On the Shou or Tibetan Stag, *Cervus Affinis*, mihú (With two Plates) [Jl xx, 388  
On the Indo-Chinese Borderers, and their connexion with the Himálayans and Tibetans [Jl xxii 1  
On the Mongolian Affinities of the Caucasians [Jl xxii, 26  
Sífán and Hórsólk Vocabularies with another special exposition in the wide range of Mongolidan affinities and remarks on the lingual and physical characteristics of the family [Jl xxii, 121  
Catalogue of Nipalese Birds, collected between 1824 and 1844 [Jl xxiv, 572  
Aborigines of the Nilgiris [Jl xxv, 31  
On a new *Perdicine* Bird from Tibet [Jl xxv 165  
Route of two Nepalese Embassies to Pekin, with remarks on the watershed and Plateau of Tibet [Jl xxv, 473  
Aborigines of the Nilgiris, with remarks on their Affinities [Jl xxv 498  
On a new *Lagomys* and a new *Mustela* inhabiting the north region of Sikim and the proximate parts of Tibet [Jl xxvi, 207.  
Comparative Vocabulary of the Languages of the broken Tribes of Nepal [Jl xxvi, 317, 429, xxvii 393  
Description of a new species of Himálayan Mole, *Talpa Macrura* [Jl xxvii, 176  
Hodgson, B H, and Blyth, E—Catalogue of Nepalese Birds presented to the Asiatic Society, duly named and classified Revised by Ed Blyth [Jl xii, 301  
Hodgson, B H, and Campbell, A.—Illustrations of the Genera of the Bovinae—Part I Skeletons of *Bos Bibos*, and *Bison* the individuals examined being the Common Bull of Nepal the Gowri Gao of Nepal and the Yak [Jl x, 442

- Hodgson, C K —Memorandum on Earthquakes in January 1849, at Burpetah, Assam [*Jl* xviii, 174]
- Hodgson, Capt J A —Latitudes of Places in Hindustan and the Northern Mountains, with observations of Longitude in the Mountains according to Immersions and Emissions of Jupiter's Satellites [*As Res* xiv, 153]
- Memorandum on the Differences of the Meridian of the Observatory at Madras, and the Flag-staff of Fort William, and of the Cantonment of Futehghur in the Doab [*Jl* ix, 75]
- Hodgson, Lt-Col J A —Journal of a Survey to the Heads of the rivers, Ganges and Jumna [*As Res* xiv, 60]
- Hodgson, Lt-Col J A, and Blossville, M de —Observations on the Inclination and Declination of the Magnetic Needle [*As Res* xviii, 1]
- Hodgson, Lt-Col J A, and Herbert, Lt J D —An Account of Trigonometrical and Astronomical Operations for determining the Heights and Positions of the principal Peaks of the Himalaya Mountains [*As Res* xiv, 187]
- Hoernle, Revd Dr A F Rudolf —On the term Gaurian as a name for the Sanskritic Vernaculars of North India [*Proc* 1872, 177]
- Essays in aid of a Comparative Grammar of the Gaurian Languages [*Jl* xli, pt 1, 120, xlii, pt 1, 59, xliii, pt 1, 22]
- A new Prakrit Grammar by Chanda [*Proc* 1878, 178]
- Exhibition of a Prakrit Grammar of Vararuchi [*Proc* 1879, 79]
- Exhibition of facsimiles of Inscriptions sent by Mr H Rivett-Carnac, C I I [*Proc* 1879, 122]
- Description of the Gold Coins found in the Ahin Posh Tope near Jelalabad [*Proc* 1879, 122]
- Exhibition of four Coins presented to the Society by Mr F S Grose [*Proc* 1879, 173]
- Remarks on Coins found in the Ahin Posh Tope [*Proc* 1879, 210]
- Exhibition of ten Copper Coins of the Mitra Dynasty, and description of the same by A C Carileale [*Proc* 1880, 7]
- Exhibition of a copy of a Pali Inscription sent by Mr A M Warham [*Proc* 1880, 55]
- Hoernle, Revd Dr A F Rudolf (*Contd*) —Exhibition of the Impression and Sketch of a Gold Medal sent by Mr T A M Gennoe [*Proc* 1880, 100]
- Exhibition of a MS of an unknown Prakrit Grammar [*Proc* 1880, 101]
- Exhibition of Brass Coins sent by Mr H Rivett-Carnac [*Proc* 1880, 102]
- Remarks on Roman Indo Scythian and Gupta Coins sent by Mr H Rivett-Carnac [*Proc* 1880, 118]
- A Collection of Hindi Roots, with Remarks on their Derivation and Classification [*Jl* xlix, pt 1, 33]
- Exhibition of Coins belonging to Mr R. Nicholson [*Proc* 1881, 39]
- Exhibition of Coins of the later Delhi Emperors [*Proc* 1881, 40]
- On Coins, &c, from Khokhrakote [*Proc* 1881, 71]
- Exhibition of Relics from Buddha Gaya [*Proc* 1881, 88]
- A new Find of Early Muhammadan Coins [*Jl* 1, pt 1, 53]
- Exhibition of three Coins found near Mahanad, forwarded by the Rev K S Macdonald [*Proc* 1882, 91]
- Second Exhibition of a Coin from Mahanada, with Note by General Cunningham [*Proc* 1882, 101]
- Exhibition of a Birch Bark MS from Bakhshali [*Proc* 1882, 108]
- Exhibition of Coins and Clay Figures from Toomluk [*Proc* 1882, 111]
- Exhibition of ten Silver Coins from Chhindwara [*Proc* 1882, 114]
- Exhibition of three Clay Seals from Mr Curr Stephen [*Proc* 1880, 114]
- Remarks on the Pali Grammarian Kachchayana [*Proc* 1882, 125]
- Exhibition of Coins from Mithanpur [*Proc* 1883, 59]
- Note on Gold Coin sent by Mr W Campbell [*Proc* 1883, 143]
- Note on Gold Coins forwarded by Mr H Rivett-Carnac [*Proc* 1883, 145]
- Note on Bihari Declension and Conjugation [*Jl* liii, pt 1, 151]
- A new Find of Muhammadan Coins of Bengal (Independent Period) [*Jl* liii, pt 1, 211]
- Holmboe, Prof — See MITRA, RAJADHARAI
- Homfray J — A Description of the Coal Field of the Dumukh Valley and the Adjacent Countries of Berhoom and Pooroolah applicable to the present date 1842 [*Jl* xii, 7, 8]



- Honigberger, Dr Martin — Journal of a Route from Dera-Ghazi-Khan, through the Vezari country, to Kabul [Jl iii, 175]
- Hooker, Dr J D — Observations made when following the Grand Trunk Road across the hills of Upper Bengal Parus Nath, &c, in the Sonne Valley, and on the Kymaon branch of the Vindhya Hills [Jl xvii, pt ii, 355]
- Notes, chiefly Botanical, made during an excursion from Darjeeling to Tonglô, a lofty mountain on the confines of Sikkim and Nepal [Jl xviii, 419]
- Horne, Charles — On punched silver bits [Proc. 1865, 149.
- On Temple of Boodh Gaya [Proc 1865, 162, 150]
- Notes on Boodh Gaya [Jl xxxiv, pt i, 278]
- On Immunity from Wasp stings [Proc 1865, 238]
- On Fireflies [Proc 1865, 2239]
- Notes on Atranji Khera or Pi-lo, in na of General Cunningham [Jl xxxv pt i 18]
- Notes on the Jumma Masjid at Etâwâh [Jl xxxvi, pt i, 74]
- Notes on Buddhist Remains near Mynpoorie [Jl xxxvi, pt i, 105]
- Notes on the Carvings on the Buddhist Rail-posts at Budh Gayâ [Jl xxxvi, pt i, 107]
- Notes on Ancient Remains in the Mainpuri District [Jl xxxvi, pt i, 157]
- Notes on the Age of the Ruins chiefly situate at Banaras and Jaunpur [Jl xli, pt i, 160]
- See SHERRING, REVD M A.
- Hoste, Capt De la — See DE LA HOSTE, CAPT
- Hough, Revd G H — Translation of an Inscription on the Great Bell of Rangoon, with Notes and Illustrations [As Res xvi, 270]
- Howison, James — Some Account of the Elastic Gum Vine of Prince of Wales' Island, and of experiments made on the milky juice which it produces, with hints respecting the useful purposes to which it may be applied [As Res v, 157]
- Huffnagle, Charles — On the 'Electrotype' [Jl x, 478]
- Hugel, Baron — Notice of a Visit to the valley of Cashmir in 1836 [Jl v, 184]
- Hugel, Baron, and Fulljames, Geo — Recent Discovery of Fossil Bones in Perim Island in the Cambay Gulf [Jl v, 288]
- Hughes, Geo — Are there Tenses in Arabic? [Proc 1883, 129]
- Hughes, Capt W G — Copperplate Inscription found at Karenee [Proc 1872, 138]
- Hughes, Rev. T P — Abstract of an Account of a Visit to Kafiristan. [Proc 1883 105]
- Hugon, Thomas — Remarks On the Silkworms and Silks of Assam [Jl vi, 21]
- Human Race, Queries respecting the, to be addressed to Travellers and others Drawn up by a Committee of the British Association for the advancement of Science, appointed in 1839, and circulated by the Ethnographical Society of London [Jl xiii, 919]
- Humboldt, Baron Von — What to observe on the Himalayas [Jl xvii, pt i, 324]
- Hume, Allan O — Letter on certain Birds [Proc 1870, 265]
- Additional Observations regarding some species of Birds noticed by Mr W T Blanford, in his "Ornithological Notes from Southern, Western and Central India" [Jl xxxix, pt. ii 113]
- Note on a few species of Barmese Birds [Proc 1872, 70]
- New species of Birds exhibited and characterised [Proc 1874, 106]
- Note on two apparently undescribed species of Goat from Northern India, and a new species of Dove from the Nicobar Islands [Proc 1874, 240]
- On a supposed new Sheep from the Central Hills of Kelat. [Jl xli, pt. ii 327]
- Hunter, Dr William — On the Plant Morinda and its uses [As Res iv, 35]
- Astronomical Observations made in the upper parts of Hindustan, and on a Journey thence to Ouzen [As Res iv, 141]
- Astronomical Observations [As Res iv, 359]
- Some Account of the Astronomical Labours of Jayasinha, Rajah of Ambhere, of Jayanagar [As Res v 177]
- Astronomical Observations made in the Upper Provinces of Hindustan [As Res v, 413]

- Hunter, Dr William (*contd*)—  
 Narrative of a Journey from Agra to Oujem [*As Res* vi, 7]  
 Remarks on the species of Pepper which are found on Prince of Wales' Island [*As Res* ix, 383]
- Hurry, W O—Note on the 'Trochilus and Crocodile' of Herodotus [*Jl* viii, 590]
- Hutton, Capt Thos—On the Habits of the Paludineæ [*Jl* i, 411]  
 Notes in Natural History [*Jl* i, 474, 554]  
 • On the Nest of the Tailor Bird [*Jl* ii, 502]  
 On the Land Shells of India [*Jl* iii, 81, 520]  
 Account of the Bearded Vulture of the Himalaya [*Jl* iii, 522]  
 Extracts from a Journal kept during a Voyage from England to Calcutta in 1831 [*Jl* iv 167]  
 Observations on an Article in Loudon's Magazine of Natural History, on the subject of the Albatross [*Jl* iv 106]  
 Nest of a Bengal Vulture (*Vultur Bengaleusis*), with Observations on the power of scent ascribed to the Vulture Tribe [*Jl* vi 112]  
 On the 'Indian Boy' "Python Tigris" [*Jl* vi, 528]  
 Geometric Tortoises, "Testudo Geometrica" [*Jl* vi 689]  
 Journal of a Trip to the Barendra Pass, in 1836 [*Jl* vi 901]  
 Notice of the Himalayan Vulture Eagle. [*Jl* vii 20]  
 Journal of a Trip through Kunawur, Hungrang, and Spiti, undertaken in the year 1838 under the patronage of the Asiatic Society of Bengal for the purpose of determining the geological formation of those districts [*Jl* viii, 901, ix 489 555]  
 Wool and Woollen Manufactures of Khorasan [*Jl* ix 327]  
 Geological Report on the Valley of the Spiti, and of the Route from Kotghur [*Jl* x 198]  
 On Galeodes (vorax?) [*Jl* xi, 857]  
 On the Wool of the Bactrian or two humped Camel (*Camelus Bactrianus*) being a copy of an unpublished Paper forwarded to the Royal Asiatic Society of London [*Jl* xi 1182]  
 Note on the "Plata Limbata," and the White Wax of China [*Jl* xi 898 1011]  
 Observations on the *Ovis Ammonoides* of Hodgson [*Jl* xvi, 568]
- Hutton, Capt Thos. (*contd*)—  
 Rough Notes on the Ornithology of Candahar and its neighbourhood [*Jl* xvi, 775]  
 Notes on the Nidification of Indian Birds [*Jl* xvii pt ii 3, 681]  
 Notes of some Land and Fresh-water Shells occurring in Afghanistan [*Jl* xviii, 64]  
 Remarks on the Snow Line in the Himalaya [*Jl* xviii, 954]
- Hutton, Capt Thos, and Benson, W H—On the Land and Fresh-water Shells of the Western Himalaya [*Jl* vii, 211]
- Hutton, Capt Thos, & Blyth, Edward—Rough Notes on the Zoology of Candahar and the Neighbouring Districts With Notes by Ed Blyth [*Jl* xiv, 340, xv, 135]
- Hutton, Capt Thos, and Smith, Lieut J—Report on some Inscriptions found at Hammam on the Southern Coast of Arabia, 1835 [*Jl* iv 583]
- Hyde, Col H—Observations on the effect of a Thunderstorm on a Self-registering Indicator [*Proc* 1870, 269]  
 Exhibition of two specimens of Wrought-iron showing Crystalline Structure [*Proc* 1874, 73]
- Ibbetson, D—Letter asking for information regarding the Ethnology of the Panjab [*Proc* 1882, 157]
- Impey, Major H B—Notes on the Garjât States of Patna [*Jl* xxxiv pt i 101]
- Impey, Dr—Description of a Colossal Jain Figure nearly 80 feet high cut in relief discovered on a Spur of the Satpooah Range in the district of Burwanie, on the Nerbudda [*Jl* xviii 918]
- Index to the Indian Geological Mineralogical and Palæontological Papers and Analysis in the Journal of the Asiatic Society [*Jl* xx 409]
- India Computation of the Area of the Kingdoms and Principalities of [*Jl* ii 488]
- "Indian Oak," Narrative of facts attending the Wreck of the Transport on the Loochoo Islands [*Jl* ix, 916]
- Indus and Ganges rivers, Comparison of the [*Jl* i 20]
- Inscriptions, Ancient (*see* also PRINSEP JAMES) [*Jl* vii 1055]
- Iron Foundry at Kasipur, near Calcutta, Roof of the New [*Jl* iv 111]

- Iron in the Kasya Hills, Smelting of [Jl i 150]
- Irvine, Dr — On the Cotton called "Nurma" [Jl xi, 311.]
- Irvine, Dr R H — A few Observations on the Probable Results of a Scientific Research after Metalliferous Deposits in the sub-Himalayan range around Darjeeling [Jl xvii, pt 1, 137]
- Irvine, William. — The Bangash Nawabs of Farrukhabad — A Chronicle (1711—1857) [Jl xlvii, pt 1, 259, xlviii pt 1 19]
- Irwin, Lieut — Memoir on the Climate Soil Produce and Husbandry of Afghanistan and the Neighbouring Countries [Jl viii, 745, 779, 869 1907, ix, 13 189]
- Ivory — Mr Ivory's Tables of Mean Astronomical Refractions revised and augmented by Major J T Boileau [Jl xiv, 1]
- Jackson, Welby — On the Iron-works of Beerbhoom [Jl xiv 754  
Notice of two Heads found in the Northern Districts of the Punjab [Jl xvi, 511]
- Jackson, Dr — On the Cultivation of Roses and the Manufacture of Rose-Water and Utur at Ghazee pore [Jl viii 411  
On the Native Mode of preparing the Perfumed Oils of Jasmine and Bela [Jl viii, 496]
- Jacquet, Eugene — Notice of the Vallabhi Dynasty of Saurashtra, extracted from the Buddhist records of the Chinese [Jl v, 655]
- Jaeschke, Revd H A — Note on the Pronunciation of the Tibetan Language [Jl xxxiv, pt 1, 91  
On N Himalayan Languages [Proc 1866 190]
- James, J O N — Memorandum on the Thunderstorm of June 8th 1871 [Proc 1871 142]
- Jameson, Dr Wm — On the Distribution of European Birds [Jl viii, 21  
Report on the Museum of the Asiatic Society [Jl viii, 241  
On the Geographic Distribution of the Vulturidæ Falconidæ and Strigidæ, being the first of a series of Memoirs intended to illustrate the Geographic Distribution of the Ornithological Kingdom [Jl viii 321  
Remarks on the Geology &c, of the Country extending between Bhar and Simla [Jl viii, 1037]
- Jameson, Dr Wm (contd) — First Report by Dr Jameson of his Deputation by Government to examine the effects of the great Inundation of the Indus [Jl xii, 183]
- Jarrad, Lieut F W — Letter regarding future Deep sea Dredging Operations [Proc 1875, 85.]
- Jarrett, Major H S — Note on Inscription from Kashmir [Proc 1880, 54  
Note on an Inscription on an Ancient Mosque in Koh Inám Zillah, Allahabad, sent by Mr A. M Markham [Proc 1880, 72  
Note on an Inscription found upon a stone lying near the ruins of a Masjid on Lanka Island, Wular Lake, Kashmir [Jl xlix, pt 1, 16]
- Jeffreys, Julius — An Inquiry into the Laws governing the two great powers Attraction and Repulsion as operating on the Aggregation and Combination of Atoms [Jl ii 441, 506]
- Jenkins, Major F — An Account of some Minerals collected at Nagpore and its vicinity, with Remarks on the Geology &c of that part of the Country [As Res xviii, pt 1, 195.  
Further Discovery of Coal Beds in Assam [Jl iv 704  
Interpretation of the Ahom extract published as Plate IV of the January number of the sixth volume of the Journal. [Jl vi, 980  
Paper on Ancient Land Grants on Copper discovered in Assam Communicated by Major F Jenkins, Governor General's Agent N E Frontier [Jl ix, 766.]
- Jenkins, H L — Notes on the Burmese Route from Assam to the Hoo-loong valley [Proc 1869, 67.  
Notes on a Trip across the Patkoi Range [Proc 1870, 230]
- Jenkins, R — Account of Ancient Hindu Remains in Chattisgher, with translations and remarks by H H. Wilson [As Res xv, 499]
- Jerdon, T C — Catalogue of Reptiles inhabiting the Peninsula of India. [Jl xxii 462, 522  
Notes on some new species of Birds from the N East Frontier of India. [Proc 1870, 59.  
Notes on Indian Herpetology [Proc 1870, 66]
- Jessop & Co — Note on the Smelting of the Iron Ore of the district of Burdwan. [Jl viii, 683]

- John, Revd Dr <sup>2</sup>-A Summary Account of the Life and Writings of *Avatar Atmala* Female Philosopher [1s Rec xv 315]
- Johnson, W H —On Journey to Khotan [Proc 1866 182]  
On Hindu Tartars [Proc 1866 236]
- Johnstone, Lieut J —Note on elephants [Proc 1868 127]
- Johnstone Lt -Col J W H —Awards resident in the Salt Range [Proc 1881 50]
- Joinville —On the Religion and Manners of the People of Ceylon [1s Rec xv 399]
- Jones Sir William —Discourse on the Institution of a Society for enquiring into the History, Civil and Natural the Antiquities Arts Sciences and Literature of Asia [1s Rec i ix]  
Dissertation on the Orthography of Asiatic Words in Roman Letters [1s Rec i 1]  
On the Gods of Greece Italy and India written in 1781 and since revised [1s Rec i 221]  
A Conversation with Abram an Abyssinian concerning the City of Gwender and the Sources of the Nile [1s Rec i 383]  
The Second Anniversary Discourse [1s Rec i 405]  
The Third Anniversary Discourse [1s Rec i 415]  
The Fourth Anniversary Discourse [1s Rec ii, 1]  
The Fifth Anniversary Discourse [1s Rec ii 19]  
The Sixth Discourse, on the Persians [1s Rec ii 43]  
Remarks on the Island of Hinzuan or Johanna [1s Rec ii 77]  
On the Chronology of the Hindus [1s Rec ii, 111]  
On the Indian Game of Chess [1s Rec ii 159]  
On the Second Classical Book of the Chinese [1s Rec ii, 195]  
On the Antiquity of the Indian Zodiac [1s Rec ii 289]  
The Design of a Treatise on the Plants of India [1s Rec ii, 345]  
The Seventh Anniversary Discourse [1s Rec ii 365]  
A Supplement to the Essay on Indian Chronology [1s Rec ii, 389]  
On the Spikenard of the Ancients [1s Rec ii, 405]  
The Eighth Anniversary Discourse [1s Rec iii, 1]  
On the Musical Modes of the Hindus [1s Rec iii, 55]

- Jones, Sir William (*contd*)—Translation of Royal Grant of Land in Carnata [1s Rec iii 39]  
On the Mystical Poetry of the Persians and Hindus [1s Rec, iii, 165]  
The Lunar Year of the Hindus [1s Rec iii 257]  
Discourse the Ninth on the Origin and Families of Nations [1s Rec iii 479]  
The Tenth Anniversary Discourse [1s Rec iv, 1]  
Additional Remarks on the Spikenard of the Ancients [1s Rec iv 109]  
On the Loris or slow-paced Lemur [1s Rec iv 135]  
Discourse the Eleventh On the Philosophy of the Asiatics [1s Rec iv 165]  
A Catalogue of Indian Plants, comprehending their Sanscrit and as many of their Linnaean Generic names as could with any degree of precision be ascertained [1s Rec iv 229]  
Botanical Observations on select Indian Plants [1s Rec iv 237]
- Jones, Mr —Description of the North-West Coal District stretching along the river Damoda, from the neighbourhood of Jerra or Juriagerh to below Sanampur in the Pergunnah of Sheergerh forming a line of about sixty five miles [1s Rec xviii, pt 1 163]
- Jones, Lieut —Journal of a Steam Trip to the North of Baghdad in April 1846 with Notes on the various objects of interest met with [JI xvi 301]
- Juhen, Stanislas —M Stanislas Juhen on the Study of the Chinese Language Translated by Henry Piddington [JI xii 816]
- Jupiter's Satellites, Eclipses of [JI i 504, 550, ii, 41]
- Kalikishen Bahadur, Raja —On the Indications of the Pulse according to the Hindus Translated from the 2nd section of the Oushudha Vali a Medical Treatise in the Bhaka language [JI i 553]  
Specimens of some Ornamental Forms of Persian Writing [JI ii 613]  
Description of an Indian Balance, called Tala [JI ii, 615]
- Karr, W Seton —Note on the course of study pursued by Students in the Sanskrit College, Calcutta [JI xiv, 135]
- Kashinath. —Notes on Rájá Todar Mall [Proc 1872, 141]

- Kater, Lieut. Henry —Description of a very sensible Hygrometer.  
[*As Res* ix, 21]
- Description of an improved Hygrometer  
[*As Res* ix, 394]
- Kay, Rev. W.—On the Connection of the Native and Accusative Cases in Bengali and Hindustani  
[*Jl* xvi, 105]
- Kean, Dr —Note on Dr Stewart's Table of Mortality among Hindu Females  
[*Jl* viii, 701]
- Keatinge, Lieut., and Evans, Lieut —Report on a Passage made on the Nerbudda river, from the Falls of Dharee to Mundlairsir, by Lieut Keatinge, and of a similar passage from Mundlairsir to Baroach, by Lt Evans (Communicated by the Government of the N. W. Provinces)  
[*Jl* xvi, 1104]
- Keeche, H G —Notes on a Map of the Mughal Empire [*Proc* 1876, 152]
- On the Revenues of the Mughal Empire  
[*Jl* i pt 1, 99]
- Keir, Archibald —Of the Method of Distilling as practised by the Natives at Chatra in Ramgur and in the other Provinces, perhaps, with but little variation  
[*As Res* i, 309]
- Khan Ali —Second Paper on a march between Mhow and Sagur On the Hill in Malwa  
[*Jl* ix, 311]
- Khanikof, de —Notes on Samarqand  
[*Proc* 1870, 226]
- Khash Alee Shekh —Account of the Esafzai-Affghans inhabiting Sama (the plains) Swat, Bunher and the Chamlia Valley, being a detail of their clans, villages chiefs and force, and the tribute they pay to the Sikhs By Shekh Khash Alee, a follower of the fanatic Syud Ahmed Prepared in 1837, under the instructions of Major R Leech  
[*Jl* xiv, 736.]
- Khwajah Ahmud Shah Nakshbun-dee Syud —Narrative of the Travels of Khwajah Ahmud Shah Nakshbun-dee Syud, who started from Cashmere on the 28th October 1852, and went through Yarkund, Kokan, Bokhara and Cabul, in search of Mr Wyburd Communicated by the Government of India  
[*Jl* xxv, 344]
- King, Dr George —On the Lion of Aboo  
[*Proc* 1868, 198]
- On the Birds of the Goona District  
[*Jl* xxxvii pt ii, 208]
- Notes on the Famine Foods of Marwar  
[*Proc* 1869, 116]
- King, L B B —Letter on the present state of the Ruins of Gaur, Bengal  
[*Proc* 1875, 93]
- King, Wm —Notice of a pre historic Burial Place with Cruciform Monoliths near Mungapat in the Nizam's Dominions  
[*Jl* xlv, pt 1, 179]
- King, W —Letter regarding Prof Schaffhausen's Ethnological Queries  
[*Proc* 1880, 2]
- Kittoe, Major Markham —Extracts from the Journal of Lieut Markham Kittoe Ruins and Pillar at Jajipur  
[*Jl* vii, 53]
- Section of a Hill in Cuttack supposed to be likely to contain Coal  
[*Jl* vii, 152]
- Extracts from the Journal of Lieut. Markham Kittoe, submitted to the Asiatic Society at the meeting of the 6th Oct. 1836 —Ruins and Pillar at Jajipur  
[*Jl* vii, 200]
- Sketch of the Sculptured Images, on the Temple of Grameswara near Ratrapur  
[*Jl* vii, 660]
- Journal of a Tour in the Province of Orissa  
[*Jl* vii, 679, 1060]
- Sketch of the Temple to Durga at Badeswur &c  
[*Jl* vii, 828]
- Report on the Coal and Iron Mines of Talcheer and Ungool, &c &c  
[*Jl* viii, 197]
- Account of a Journey from Calcutta via Cuttack and Pooree to Sumbalpur, and from thence to Mednipur through the Forests of Orissa  
[*Jl* viii, 367]
- Proposed Publication of Plates of Hindu Architectural Remains  
[*Jl* viii, 384.]
- Account of a Journey from Sumbalpur to Mednipur, through the Forests of Orissa  
[*Jl* viii, 474, 606, 671]
- Note on a Pillar found in the Ganges near Pynna and of another at Kurra near Allahabad  
[*Jl* viii, 681]
- Note on an Image of Buddha found at Sherghatti, &c  
[*Jl* xvi, 78]
- Notes on the Viharas and Chaityas of Behar  
[*Jl* xvi, 272]
- Note on the Sculptures of Bôdh Gyah.  
[*Jl* xvi, 334]
- Instructions how to take Correct Facsimiles of Inscriptions  
[*Jl* xvi, 366]
- Hints on the Easiest Method of taking and preparing Drawings for Lithograph  
[*Jl* xvi, 368]
- Notes on the Caves of Burabur  
[*Jl* xvi, 401]
- On the Temples and Ruins of Oomgra  
[*Jl* xvi, 656]

**Kittoe, Major Markham** (*contd*)—  
 Notes on Places in the Province of Behar, supposed to be those described by Chy-Fa-Hun, the Chinese Buddhist Priest who made a pilgrimage to India, at the close of the fourth century A D [*Jl* xvi, 953  
 Inscription at Oomgá, and Notes on the same [*Jl* xvi, 1220  
 Extract of a letter from Capt Kittoe [*Jl* xvii, pt 1, 536  
 Note on an Inscription, engraved upon a brick, found some years ago in a field near a village in the Jaunpur district with a transcript from the original by Hiranand Pandit, and a translation by James Ballantyne [*Jl* xix 455  
 Memo on some ancient Gold Coins found near Benares, in 1851 [*Jl* xxi, 390  
*See* BALLANTYNE, DR, POSTANS, LIEUT  
**Knighton, William**—On the Ruins of Anuradhapura, formerly the capital of Ceylon [*Jl* xvi, 213  
 On the Rock Temples of Dambool, Ceylon [*Jl* xvi, 340  
**Koppa Gadde Sásana**, Sanskrit transcript of [*Proc* 1873, 75  
**Korosi, Alexander Csoma**—Analysis of the Dulva a portion of the Tibetan work entitled the Kah-Gyur [*As Res* xx, pt 1, 41  
 Notices on the Life of Shakya, extracted from the Tibetan Authorities [*As Res* xx pt 11 285  
 Analysis of the Sher-Chin—P'hal-ch'hen — Dkon-Séks — Do-Dé — Nyáng-Dás and Gytut Being the 2nd 3rd 4th, 5th, 6th, and 7th divisions of the Tibetan Work, entitled the Kah-Gaur [*As Res* xx, pt. 11, 393  
 Abstract of the Contents of the Bstan-Hgyur [*As Res* xx pt 11, 553  
 Geographical Notice of Tibet [*Jl* 1 121  
 Translation of a Tibetan Fragment [*Jl* 1 269  
 Note on the origin of the Kala-Chakra and Adi-Buddha Systems [*Jl* 11 57  
 Translation of a Tibetan Passport, dated, A D 1688 [*Jl* 11 201  
 Origin of the Shákya race translated from the *q* (La), or the 26th volume of the *m* Do class in the Ká-gyur, commencing on the 161st leaf [*Jl* 11. 385  
 Extracts from Tibetan Works, translated by [*Jl* 111, 57

**Korosi, Alexander Csoma** (*contd*)  
 —Analysis of a Tibetan Medical Work [*Jl* iv 1  
 Interpretation of the Tibetan Inscription on a Bhotian Banner taken in Assam and presented to the Asiatic Society by Captain Bogle [*Jl* v, 264  
 Notices on the different systems of Buddhism, extracted from the Tibetan authorities [*Jl* vii 142  
 Enumeration of Historical and Grammatical works to be met with in Tibet [*Jl* vii 147  
**Koros, Csoma de**—A brief Notice of the Subhásita Ratna Nidhi of Sákya Pandita with extracts and translations [*Jl* xxiv, 141 xxv, 257.  
*See* LLOYD MAJOR, F H A.  
**Kosumbha**, Correspondence relating to the Monolith of, in the Allahabad District [*Proc* 1870, 291  
**Kuhn, Prof A**—On myths connected with Sunrise [*Proc* 1868, 226  
**Kumbhupatias**, Communication regarding the, a Sect of Hindu Dissenters [*Proc* 1881, 154  
 Note on the origin and growth of the Sect of the [*Proc* 1882, 2  
**Kurz, S**—On Pandanophyllum and allied genera especially those occurring in the Indian Archipelago [*Jl* xxxviii pt 11, 70  
 Remarks on the species of Pandanus [*Jl* xxxviii pt 11, 145  
 On some new or imperfectly known Indian Plants [*Jl* xxxix, pt 11, 61, xl pt 11, 45  
 A fourth List of Bengal Algae [*Proc* 1870, 257  
 Gentiana Jaeschkei re-established as a new genus of Gentianaceæ, (with Plate XIII) [*Jl* xxxix, pt 11, 229  
 New Burmese Plants, Part I [*Jl* xli pt 11, 291  
 New Burmese Plants, Part II [*Jl* xlii, pt 11, 59  
 New Burmese Plants, Part III (with Plates XVIII, XIX) [*Jl* xlii, pt 11, 227  
 Contributions towards a knowledge of the Burmese Flora, Part I [*Jl* xliii, pt 11 39  
 Descriptions of a few Indian Plants [*Jl* xliii pt 11, 181  
 Enumeration of Burmese Palms [*Jl* xliii, pt 11, 191  
 Contributions towards a knowledge of the Burmese Flora, Part II [*Jl* xlii, pt 11, 128  
 Notes on a few new Oaks from India, (with Plates XIV) [*Jl* xlii, pt 11, 196

- Kurz, S (*contd*)—Description of a new species of *Zupistia* from Tenasserim [*Jl* xlv, pt ii, 198  
 Descriptions of new Indian Plants [*Jl* xlv, pt ii, 199  
 A Sketch of the Vegetation of the Nicobar Islands [*Jl* xlv, pt ii 105  
 Contributions towards a Knowledge of the Burmese Flora [*Jl* xlv, pt ii, 49
- Kyd, James — Tables exhibiting a Daily Register of the Tides in the River Hooghly at Calcutta from 1805 to 1825 with observations on the results thus obtained [*As Res* xviii, pt i 259
- Lafont, Fr E — A Letter with reference to the erection of a Spectroscopic Observatory [*Proc* 1875, 58.  
 Exhibition of Crookes' Radiometer [*Proc* 1876, 171  
 Exhibition of two Microphones [*Proc* 1878, 152  
 Exhibition of some of W Crookes' High Vacuum Tubes [*Proc*, 1879 279  
 Exhibition of one of Crookes' Electrical Radiometers [*Proc* 1880, 61
- Laidlay, J W — On Catadioptric Microscopes [*Jl* iii, 288  
 Analysis of Raw Silk. [*Jl* iv, 710  
 Observations on the rate of Evaporation on the Open Sea, with a description of an Instrument used for indicating its amount [*Jl* xiv, 213  
 On the Coins of the Independent Muhammadan Sovereigns of Bengal [*Jl* xv, 323  
 Note on a Sanskrit Inscription from Behar [*Jl* xvii pt i, 498, xviii, 498  
 Note on the Inscriptions from Singapur and Province Wellesley forwarded by the Hon Col Butterworth, C B, and Col J Low [*Jl* xvii pt ii 66  
 Notice of a Chinese Geographical Work [*Jl* xviii 137  
 On preparing Fac-similes of Coins &c [*Jl* xviii, 276
- Lal, Munshi Mohan — A Brief Description of Herat [*Jl* ii, 9  
 Further information regarding the Siah Posh Tribe, or reputed descendants of the Macedonians [*Jl* iii, 76  
 A brief account of Masud known by the name of Farid Shaharganj or Shahrabir [*Jl* v, 637  
 Description of Uch-Sharif [*Jl* v, 796  
 Account of Kila Bāgh on the right bank of the Indus [*Jl* vii, 25
- Lal, Munshi Mohan (*contd*) — A brief Account of the Origin of the Daūd Putras and of the power and birth of Bahāwal Khān their chief on the bank of the Ghara and Indus [*Jl* vii, 27
- Lamb, Dr G W — Register of the Fall of Rain in inches at Dacca, from 1827 to 1844 [*Jl* iv, 107  
 Abstract of Temperature and Fall of Rain kept by Medical Officers in different parts of India [*Jl* xvi 757
- Lamb, Major — Note on an Earthquake at Kāmrup on the 19th December 1872 [*Proc* 1873, 65
- Lambton, Lieut - Col William — Observations on the Theory of Walls, wherein some particulars are investigated which have not been considered by writers on fortification [*As Res* vi 95  
 On the Maximum of Mechanic Powers and the effects of Machines when in motion [*As Res* vi 157  
 An account of a method for extending a Geographical Survey across the Peninsula of India [*As Res* vii 312  
 An Account of the measurement of an Arc on the Meridian on the Coast of Coromandel, and the length of a degree deduced therefrom in the latitude  $12^{\circ} 32'$ . [*As Res* viii, 157  
 An Account of the Trigonometrical Operations in crossing the Peninsula of India and connecting Port St George with Mangalore [*As Res* x, 290  
 An Account of the measurement of an Arc on the Meridian, comprehended between the latitudes  $8^{\circ} 35' 19''$  and  $10^{\circ} 59' 45'' 9''$  north, being a continuation of the great Meridional Arc commenced in 1804, and extending to  $11^{\circ} 6' 14''$  North [*As Res* xii, 1  
 An Account of the measurement of an Arc on the Meridian extending from Latitude  $10^{\circ} 59' 45'' 9''$  to  $12^{\circ} 0' 65''$  north [*As Res* xii 200  
 An Account of the measurement of an Arc on the Meridian extending from Latitude  $12^{\circ} 0' 65''$  to Latitude  $14^{\circ} 3' 17''$ , being a further continuation of the former Arc, commencing in Latitude  $10^{\circ} 59' 45'' 9''$  [*As Res* xii 1
- Landour, Accident from the 1st Jan 1872 [*Proc* 1872, 1

- Lassen, Christian — Objects of Research in Afghanistan [Jl viii 145  
Points in the History of the Greek and Indo-Sathian Kings in Bactria, Cabul and India as illustrated by deciphering the ancient legends on their coins [Jl ix 251 331 419 627 713
- Latter, Capt T — Remarks on a Buddhist Coin or Medal sent to the Society through Captain Macleod Assistant Commissioner Tinnacrim by H H the Prince of Mekkara [Jl xii 571  
On the Buddhist Emblems of Architecture [Jl xiv 623  
A Note on some Hill Tribes on the Kuladyne River, Arracan [Jl xv 60  
The Symbolical Coins of Arakan [Jl xv 238
- Layard, Capt F P — Hooks and Corners of Buzul — No I The Tomb of Meer Muadan Khan Commander-in-chief of the Nuwab Sooraj-ood-Dowlah's Army at the Battle of Plassey [Jl xxi 118  
The Mausoleum of the Nuwabs Ali-verdi Khan and Sooraj-ood Dowlah at Khooshabigh, near Moorshedabad [Jl xxi 501  
The Ancient City of Kansanapuri now called Rungamutti [Jl xxii 281
- Lea, Isaac — Characters of three new species of Indian Fresh-water Bivalves [Jl iv 450
- Le Beck, Henry J — An Account of the Pearl-Fishery in the Gulph of Mannar in March and April 1797 [As Res v, 393
- Lee, J Bridges — Remarks on Atmospheric Absorption [Proc 1881, 47  
A New Meteorological Instrument for determining the quantity of dew deposited on clear nights [Proc 1881 66
- Leech, Major Robert — Epitome of the Grammars of the Brahuiky the Balochky and the Panjabi Languages with Vocabularies of the Baraky, the Pashu, the Lghmani, the Cashgari, the Teerhai and the Deer Dialects [Jl vii 548 608, 711 780  
A Grammar of the Pashtoo or Afghannee Language [Jl viii 1  
Brief History of Kalat brought down to the Deposition and Death of Mehrab Khan Brahooce [Jl xii 473  
Notes on and a short Vocabulary of, the Hindooce Dialect of Bundelkhand [Jl xii, 1086
- Leech, Major Robert (contd) — A Description of the Country of Seistan [Jl xiii, 115  
A Grammar of the Cashmeerece Language [Jl xiii, 397, 553  
Route from Derá Ghazee Khan to Candahar, through the Sakhee Sarwar Pass and Buzdar with other routes [Jl xiii, 527  
An Account of the early Ghiljées [Jl xiv, 306  
A Supplementary Account of the Hazarabs [Jl xiv 333  
Notes on the Religion of the Sikhs, being a Notice of their Prayers, Holidays and Shrines [Jl xiv, 393  
An Account of the Early Abdalees [Jl xv 445  
See ABDUL NUBRE, HAJFI AGHA ARNAS, ALFIM-ULLA, FULLA, KHASH ALIE, SHEKH, RAIAH KHAN
- Lees, Capt W Nassau — On the application of the Characters of the Roman Alphabet to Oriental Languages [Jl xxxiii 345  
On Mahomedan Conquest of Arabia. [Proc 1865, 100  
On the Igbál Námeih-i Jahangiri and other authorities for the reign of the Emperor Jehangir [Proc 1865, 114  
On Double Currency [Proc 1865, 210  
On Oriental College at Lahore [Proc 1866, 129  
On Scientific Technology [Proc 1866, 163 175  
On the Maásir-i Alamgiri and Kháff Khan [Proc 1868, 114
- Leigh, Capt R T — Notes on Jumerá Pat in Sirgooja [Jl xxvi 226
- Leitner, Dr G W — Photograph of Indo Aryans sent by [Proc 1880 141, 171
- Lemesurier, M H P — On Chambered Tumuli near Chunar [Proc 1867, 164
- Leonard G S — The Mythical History of the God Viráj [Jl xlv, pt 1 126  
"Further Proofs of the Polygamy of Kalidása's Heroes" [Jl xlv, pt 1, 160
- Leonard — On the Earthquake of 1869 in Cachar [Proc 1869, 102,
- Lepper, C H — Notes on the Singpho and Kampti Country, North-Eastern Frontier [Proc 1882, 64
- Leslie, Matthew — On the Pangolin of Bahar [As Res 1, 376
- Lethbridge, W C — On some old Dutch Records at Chinsura [Proc 1871, 85







- McGregor, Lieut A. Murray.—An improvement on Irrigation [Jl xi 39.  
A Geographical Notice of the Valley of Jullalabad [Jl xi, 117
- MacGregor, Capt G H.—A Geographical Notice of the Valley of Jullalabad [Jl xiii, 867
- MacGregor, W.—Abstract of a Paper on the Prevention of Accidents from Lightning. [Prior 1876, 104
- Mackay, Revd Dr W S.—The Great Comet of 1861. [Jl xxx, 279
- Mackenzie, Col Colin—Account of the Pagoda at Jernutium [As Res v, 303  
Remarks on some Antiquities on the West and South Coasts of Ceylon [As Res vi 425  
View of the principal Political Events that occurred in the Carnatic from the dissolution of the Ancient Hindoo Government in 1564, till the Mogul Government was established in 1687, on the Conquest of the Capitals of Bejapoor and Golconda Compiled from various Authentic Memoirs and Original MSS collected chiefly within the last ten years and referred to in the Notes at the bottom of each page [Jl xiii 421, 578
- Mackenzie, Capt H.—On the Antiquities of Guzerat [Jl xxviii, 402
- Maackenzie, Dr.—An Account of Venomous Sea Snakes on the Coast of Madras [As Res xiii, 329
- MacKeson, Major F.—Journal of Captain C M Wade's Voyage, from Lodiana to Mithaukot by the river Sutlej on his mission to Lahore and Bahawalpur in 1832-33 [Jl vi, 169  
Report on the Route from Seera to Bahawalpore [Jl xiii, 297
- Mackintosh, Capt.—On an Indian method of Constructing Arches [As Res xiv, 476
- MacLagan, Major-General R.—Fragments of the History of Mooltan, the Derajat, and Bahawalpore, from Persian MSS [Jl xvii, pt ii, 559  
List of Arabic Works preserved in a library at Aleppo [Jl xxiii 44  
On Early Asiatic Fire Weapons [Jl xlv, pt, i, 30
- McClelland, Dr John—Indian Cyprinidæ [As Res xix pt ii, 217  
Notice of some Fossil Impressions occurring in the Transition Limestone of Kemaon [Jl iii, 628
- McClelland, Dr John (contd)—Description of the (so called) Mountain Trout of Kemaon [Jl iv 39  
Catalogue of Geological Specimens from Kemaon presented to the Asiatic Society [Jl vi, 653  
On the Difference of Level in Indian Coal-fields, and the causes to which this may be ascribed [Jl vii 65  
Observations on six new species of Cyprinidæ with an outline of a new classification of the family [Jl vii 941  
On the genus Hexaprotodon of Dr Falconer and Captain Cantley [Jl vii, 1038  
On Isinglass in *Polynemus seles*, Bach, a species which is very common in the Estuaries of the Ganges [Jl viii 203  
Memoranda on the Museum of the Asiatic Society [Jl viii 415  
Extracts from Mr McClelland's paper on Indian Cyprinidæ [Jl viii, 650.  
Extracts from a letter to Government on Capt G B Tremenhoe's report on the tin of Mergui [Jl xi, 25  
Note on the Discharge of Water by the Irrawaddy [Jl xxii, 480
- McLeod, Col D.—Abstract Report of the Proceedings of the Committee appointed to superintend the Boring Operations in Fort William, from their commencement in December, 1835, to their close in April 1840 [Jl ix, 677.
- Macleod, Sir D F.—On Oriental Colic at Lahore [Proc 1866, 118
- McLeod, D W.—Memorandum regarding specimens from Seoni, Chupara. [Jl vi, 1091.
- McLeod, Capt T E.—Abstract Journal of an Expedition to Kiang Hung on the Chinese Frontier, starting from Moultmein on the 13th December, 1836 [Jl vi, 989  
Note on the Map attached to the Report of the Coal Committee in the 98th Number of the Journal of the Asiatic Society [Jl ix, 582.
- McMaster, Lieut-Col A C.—Notes on Birds observed in the neighbourhood of Nagpore and Kamptee, (Central Provinces) Chikalda and Akola in Berar [Jl xl, pt. ii, 207
- Macnamara, Dr C.—On the intimate structure of Muscular Fibre [Jl xxxvii, pt. ii, 71.
- Macpherson, Lieut S Charters—On the Geology of the Peninsula [As. Res xviii, pt ii, 115.

- Maerke John** — Account of the Koo Pass or Lunctas [ *Is Rec* vii 183  
Case of the Bite of a Poisonous Snake  
successfully treated [ *Is Rec* xi 309
- MacRitchie, J** — Abstract of Meteorological Tables kept at Banceora for 1800 and 1811 [ *H* i 151  
Meteorological Register for 1811 kept at Banceora [ *H* iii 190
- Madden, Major Edward** — Diary of an Excursion to the Shatol and Boarun Passes over the Himalaya in September 1845 [ *H* xv 79  
Notes of an Excursion to the Pindree Glacier, in September 1846 [ *H* xvi 226 796  
The Tharce and Outer Mountains of Agumra [ *H* xvii pt 1 349 361  
Supplementary Notes to The Tharce and Outer Mountains of Kummra Journal of Asiatic Society Bengal May and June 1848 [ *H* xviii 601
- Mahommed, Ismail Moulvi** — Notice of the peculiar Lunctas held by the followers of Saïd Ahmed taken chiefly from the Sirat ul Musafir a principal Treatise of that Sect [ *H* i 479
- Mahony, Capt** — On Singhala or Ceylon and the Doctrines of Bhodidha from the Books of the Singhala [ *Is Rec* vii 32
- Malinsay, Dr A C** — On rare Malayan Animals [ *Proc* 1868 191
- Mainwaring, Col G B** — Remarks on the term Man Mwon or Mon [ *Proc* 1871 171
- Maisey, Lieut F** — Description of the Antiquities at Kalijar [ *H* xvii, pt 1 171  
Appendix to the Account of the Antiquities of Kalijar [ *H* xvii pt 1 111
- Malcolm, Brigadier-General John** — Translations of two Letters of Nadir Shah, with Introductory Observations [ *Is Rec* x 526  
Sketch of the Sikhs [ *Is Rec* xi 197
- Malcolmson, J G** — Note on Saline Deposits in Hyderabad [ *H* ii 77  
Notes explanatory of a Collection of Geological Specimens from the Country between Hyderabad and Nagpur [ *H* v 96
- Malet, Sir C W** — Description of the Caves or Excavations on the mountain about a mile to the eastward of the town of Ilora, or as called on the spot Verrool, though therein there appears inaccuracy as the foundation of the town is attributed to Yelloo, or Lilloo riyah, whose capital is said to have been Ellich-poro. [ *Is Rec* vi, 389
- Mallet, F R** — Exhibition of a Meteorite received from Mr H Fraser [ *Proc* 1878 174
- Man, E H** — List of Words of the Nicobar Language as spoken at Camorta Nancowry, Trinkutt, and Katschal [ *H* xli, pt 1 1
- Mandara Hill, near Bhagelpore**, Note on an Inscription on the [ *H* ix, 166
- Manger, O** — Specimen of the Language of the Goonds as spoken in the District of Sonoe Chuparah, comprising a Vocabulary Grammar, &c [ *H* xvi 286
- Mangosteen on the Kumbh Katel or Concrete Oil of the Wild** [ *H* ii 592
- Manson, Capt** — Captain Manson's Journal of a Visit to Melum and the Oouta Dhoora Pass in Juhahir Edited by J H Batten [ *H* xi 1157
- Mareadieu, M** — Report on the Kooloo Iron Mines and on a portion of the Mannuluru Valley (communicated by the Government of India) [ *H* xxiv 191
- Maritime Surveys, Progress of Indian** [ *H* i 327
- Marsden, William** — On the Traces of the Hindu Language and Literature extant amongst the Malays [ *Is Rec* iv, 221
- Marsh, Capt H C** — Description of a Trip to the Gilgit Valley a dependency of the Maharaja of Kashmir [ *H* xlv pt 1 119
- Marshall, Capt G T** — Translation of an Inscription on a Stone in the Asiatic Society's Museum marked No 2 [ *H* vi 88
- Marshall, Major G F L** — Notes on the Butterflies of India [ *Proc* 1882 142  
Some New or Rare Species of Rhopalocerous *Lepidoptera* from the Indian regions [ *H* li pt ii 37  
A New Species of *Hipparchia* (*Lepidoptera Rhopalocera*) from the N W Himalayas [ *H* li pt ii 67
- Marshall, Major G F L, and De Niceville, L** — Some New Species of Rhopalocerous *Lepidoptera* from the Indian region [ *H* xlix pt ii 245
- Martens, Dr G Von** — A third list of Bengal Algae [ *Proc* 1870, 9  
Notes on Javanese, Algae [ *Proc* 1870, 182  
A fifth list of Bengal Algae [ *Proc* 1871 170  
List of Algae collected by Mr S Kurz, in Burma and adjacent Islands [ *H* xl pt ii, 461



Melville, Capt W R — Note on some  
Buddhist Ruins at Doob Koond  
[*Jl* xxxv pt i 168]

Metcalf, C T — See MITRA Dr  
PADMINIATA

Meteor Extraordinary observed at the  
Nicolars — [*Proc* 1871 156]

Meteorological Observations Abstract  
of the taken at Gangatrowa near  
Kandy Ceylon  
[*Jl* xxxiii 1 xvi lxi, xxxiv  
pt ii xxi xxxv pt ii lxi]

Meteorological Observations kept at  
Bangom  
[*Jl* xxi 520 622 xxii, 113, 317,  
421 492 506 xxiii (1)]

Meteorological Register kept at  
Indhow  
[*Jl* xxiii (77) xxiv xlix li, lxiv  
lxvi]

Meteorological Register kept at the  
Surveyor General's Office Calcutta  
[*Jl* i 23 30 80 120 108 216 261,  
326 374, 470 478 504 571,  
n 1 101 100 216 272 328 383  
384 410 496 500 608 615 641  
603 m 36 101 152 208 256  
312 368 424 480 544 600 656  
lx 64 120 184 240 296 60  
412 470 525 588 652 716  
x 60 128 192 256 320 376  
440 520 600 684 760 836,  
xi 80 160 245 24 404 500  
620, 712 804 900 988 1100  
xii 92, 172 286 370 468 582  
67, 750 848 948 990 1064,  
xiii 76 158 250 360 442 621,  
192 777 867 917, 1069 ix 95  
217 xvi 850 1002 1094 1182  
1278 xvii pt i 86 170 256,  
317 478 562, pt ii 125, 238,  
31 175 591 707 xviii 88a,  
182a 286a, 418a, 552a, 649 759  
866 981, xix, 89 189, 259 319,  
429, 499, 571 xx 112 217 289,  
369 449 545 635, xxi 103, 193,  
280, 363, 443, 555 643 xxii,  
117, 508 599 687, xxiii (9),  
(29) (41) (49), (57), xxiv (1)  
(xxv) (xxxix), (lxxi), xxv (1),  
(xxix), (xli), (lvi) (lxxxix),  
(xcix), xxvi, i, ix, xvii, xlix,  
lvi, xxvii, xlix, lvi, xxviii 1,  
xli, xxix 1, xxv, xlix, lvi,  
xxx 1 xxv, xlix, lvi, xxi, 1,  
xvii, xlix, lxxiii, xcvi, xxxii, 1,  
xvi, xlix, lxxiii, xxxiii, 1, xxv,  
xlix, xxxiv, pt ii, 1 ix, xxv,  
xxxiii, xxxv, pt ii, 1, lvi,  
xxxvi, pt ii, xvii, xxxiii, xli,  
xxxvii, pt ii, 1, xxxviii, pt ii,  
1, lxi, xxxix pt ii, 1, lxxxiii,  
xl, pt ii, lxxxiv

Meteorological Register kept at the  
office of the Secretary to Govern-  
ment N W P Agra

[*Jl* xxii 217 325 421, 705, xxiii  
(17) (31) (46) (51), (73) (81)  
xxiv, xvi xxi xxv xl, li, lxxxv  
xxiii cxxx xxvi, xxii]

Meteorological Register kept at the  
Surveyor General's Office Calcutta  
Monthly Means of Maximum and  
Minimum Pressures for 1811 to 1819,  
taken from the [*Jl* xx, 528]

Diagram of Monthly Mean Curves of  
Barometer and Thermometer, wet  
and dry bulb and of Rainfall,  
Calcutta 1856—1865

[*Jl* xxxvii, pt ii]

Table of Mean Monthly Readings and  
Hourly Variations of Barometer,  
Calcutta 1856—1865

[*Jl* xxxvii pt ii]

Meteorological Register kept on Ross  
Island, for December, 1859

[*Jl* xxx, 32]

Meteorological Observations in the  
Punjab, Correspondence regarding  
[*Proc* 1871, 120]

Mhow and Saugor, 1839, March  
between [*Jl* viii, 805]

Mitchell, R — See VISUKOILI, W

Middleton, J — On the Meteors of  
August 10th 1839 [*Jl* viii, 495]

Description of an Astronomical Instru-  
ment presented by Rajah Ram Sing  
of Khetra to the Government of  
India [*Jl* viii 831]

Description of a Persian Astrolabe,  
submitted to the Asiatic Society by  
Major Pottinger [*Jl* x 759]

On the Specific Gravity of Sea Water  
[*Jl* xii, 766]

Influence of the Moon on the Weather  
[*Jl* xx, 275]

Mignan, Capt Robert — A brief  
Sketch of the present state of  
Georgia, now a Russian Province

[*Jl* iii, 232]

Journal of Tour through Georgia,  
Persia, and Mesopotamia

[*Jl* iii, 271, 332, 456, 576, iv, 602]

Miles, Lieut R H — Some Remarks  
upon the Country to the south-west  
of Hoshungabad, and of the soil,  
cultivation, &c, of that part of the  
Valley of the Nerbudda situated  
between Hoshungabad and the Fort  
of Mokrai, in the lower range of  
the Kahl-bheet Hills [*Jl* iii, 61]

Miles, Lt-Col S B — Translation of  
extracts from an Arabic work re-  
lating to Aden. [*Proc* 1875, 218]

- Miles, Lt.-Col S. B (*contd*)—On the Route between Sohar and el-Bereymī in 'Oman, with a Note on the Zatt, or gypsies in Arabia [*Jl* xlvī pt 1, 41.]
- Mill, Revd Dr W H—Restoration of the Inscription, No. 2, on the Allahabad Column [*Jl* iii, 251]  
Supplement to the Historical Remarks on the Allahabad Inscription, No 2 [*Jl* iii, 319]  
Restitution and Translation of the Inscription found in the Ruins of the Mountain Temple of Shekawati [*Jl* iv 367]  
Restoration and Translation of the Inscription on the Bhūtārī Lāt, with critical and historical remarks [*Jl* vi 1]
- Minas, Peter A—A short Sketch of the Tribes of Bhutteenah and Hurrianah. [*Jl* xxxvii pt ii, 171]
- Mino, Dr J E.—Memoir on the Regeneration and Actual State of Medicine in Egypt [*Jl* viii, 391]
- Mitchell, Capt J—Additions to the knowledge of Silk [*Jl* xxxvii, pt ii, 169]
- Mitra, Dr. Rajendralala — Translation of a Mithraic hymn from the Vijaya Mandir at Udayapur [*Jl* xvii, pt ii, 69]  
Translation of Copperplate Inscription, presented to the Society by Brigadier Stacy [*Jl* xvii, pt 1, 71]  
Note on an Inscription from Oujein [*Jl* xix, 476]  
Note on three ancient Coins found at Mohammadpur, in the Jessore district [*Jl* xxi, 401]  
Note on an ancient Inscription from Thāneswar [*Jl* xxii, 673]  
On the Peculiarities of the Gāthā Dialect [*Jl* xxiii, 604]  
Notes on ancient Inscriptions from the Chusan Archipelago and Peshāwar [*Jl* xxiv, 324]  
Buddism and Odinism, their similitude, illustrated by Extracts from Professor Holmboe's Memoir on the "Traces de Buddhisme en Norwége" [*Jl* xxvii, 46]  
On the Identity of the Toramānas of Eran, Gwalior and Kashmir [*Jl* xxx, 267]  
Translation of a Bactrian Inscription from Wardak in Afghanistan [*Jl* xxx, 337]  
On some Bactro-Buddhist Relics from Rāwal Pindi [*Jl* xxxi, 175]  
Vestiges of the Kings of Gwalior [*Jl* xxxi, 391]
- Mitra, Dr. Rajendralala (*contd*)—  
Bhoja Rājā of Dhār and his Homonyms [*Jl* xxxii, 91.]  
Note on Major General A Cunningham's Remarks on the Bactro Pahlavi Inscription [*Jl* xxxii 161]  
Two Ancient Sanskrita Inscriptions from Central India, texts translations and comments [*Jl* xxxii, 273]  
On the Ruins of Budha Gayā [*Jl* xxxiii, 173]  
On a Land Grant of Mahendrapala Deva of Kanauj [*Jl* xxxiii 321.]  
On the Buddhist Remains of Sultān-ganj [*Jl* xxxiii 360]  
On the Origin of the Hindvī Language and its relation to the Urdu Dialect [*Jl* xxxiv, 489.]  
On Amen and Om [*Proc* 1865, 46]  
On the Sena Rājās of Bengal as commemorated in an Inscription from Rayshāhi decyphered and translated by C T Metcalfe, Esq C S [*Jl* xxxiv, pt 1, 128.]  
On Cashmir [*Proc* 1866, 65.]  
On Oriental College at Lahore [*Proc* 1866, 103, 125.]  
On Scientific Technology [*Proc* 1866, 148, 157.]  
On "Om" and "Amen" [*Proc* 1866, 208.]  
Note on a Copperplate Inscription from Sambhalpur [*Jl* xxxv, pt 1, 195.]  
Notes on Gupta Inscriptions from Aphasar and Behar [*Jl* xxxv, pt 1, 208]  
On Arian Alphabets [*Proc* 1867, 35]  
On Sanscrit MSS [*Proc* 1868, 43]  
On Coins of Antimachos and Azehsas [*Proc* 1868, 164.]  
Letters addressed to Babu R Mitra By Babu R Mitra [*Proc* 1899, 188]  
Extracts from letters from Prof Holmboe [*Proc* 1869, 188]  
Inscription from Mr Beames [*Proc* 1870, 4.]  
Remarks on the relation of Urya to other modern languages [*Proc* 1870, 201.]  
Remarks on two Inscriptions received from Babu Rashbihari Bose [*Proc* 1870, 294]  
Notes on Sanskrit Inscriptions from Mathurā [*Jl* xxxix, pt 1, 117]  
On the Funeral Ceremonies of the Ancient Hindūs [*Jl* xxxix, pt 1, 241.]  
Style of Dress in Ancient India [*Proc* 1871, 100]

- Mitra, Dr Rajendralala (*contd*)—  
 Notes on the Allah Upanishad [Proc 1871, 140]  
 Report for 1870-71, regarding the cataloguing of Sanscrit MSS that are found in the Libraries of Bengal [Proc 1871, 277]  
 The Alla Upanishad a spurious chapter of the Atharva Veda, text, translation, and notes [Jl xI pt 1, 170]  
 Electrotypes of two ancient Seals [Proc 1872, 140]  
 Remarks on the term Gamian [Proc 1872, 180]  
 Notes on two Inscriptions from Bunka, Zilah Bhaghalpur [Proc 1872, 198]  
 Beef in Ancient India [Jl xli, pt 1, 174]  
 A Picnic in Ancient India [Jl xli, pt 1, 340]  
 Translation of, and Remarks on Mr Delmerick's Sanskrit Inscriptions from the neighbourhood of Delhi [Proc 1873, 102]  
 Spirituous Drinks in Ancient India [Jl xlii pt 1, 1]  
 Postscript to the Paper on Spirituous Drinks in Ancient India. [Jl xlii pt 1, 58]  
 On two Copperplate Inscriptions (Kannauj) [Jl xlii pt 1, 314]  
 Note on the Pálam Báolí Inscription [Jl xlii pt 1, 104]  
 On the supposed Identity of the Greeks with the Yavanas of the Sanskrit writers [Jl xlii pt 1, 246]  
 On a Copperplate Inscription of the time of Skanda-Gupta (with a plate) [Jl xlii pt 1, 363]  
 Note on a Copperplate Inscription of the time of Skanda Gupta [Proc 1875, 45]  
 Report on Sanskrit MSS [Proc 1875, 63]  
 Translations of Inscriptions from Benares [Proc 1875, 82]  
 Reply to enquiry regarding the mention of Leprosy by ancient Hindu writers [Proc 1875, 160]  
 Remarks on a letter from Mr E Thomas, on a Coin of Kunanda [Proc 1875, 165]  
 Letter pointing out a mistake in his paper on the Skanda Gupta Inscription from Anupshahr [Proc 1875, 163]  
 On supposed Greek Sculpture at Mathura [Proc 1875, 165]  
 On a Coin of Kunanda from Karnál [Jl xlii pt 1, 82]

- Mitra, Dr Rajendralala (*contd*)—  
 Remarks on a letter from Dr Burnell on the Invasion of Bengal by the Chola King Kulottunga. [Proc 1875, 106, 108.]  
 Translations of Inscriptions from Rohtas [Proc 1876, 100]  
 Remarks on a Copperplate Grant of Govind Chundra of Kannauj, presented to the Society by Mr F S Growse [Proc 1879, 130]  
 On Human Sacrifices in Ancient India [Jl xlv pt 1, 76]  
 An Imperial Assemblage at Delhi three thousand years ago [Jl xlv pt 1, 368.]  
 On a Copperplate Inscription from Pandukeshvar [Proc 1877, 71.]  
 Remarks on a Collection of Pottery from Baluchistan [Proc 1877, 160]  
 Exhibition of Plaster Casts of the Hathigumpha Inscription at Udayagiri, with a revised reading and translation [Proc 1877, 163]  
 Exhibition of and Remarks on a Copperplate Inscription received from Mr W R Davies, of Bhagalpur [Proc 1877, 257.]  
 Researches at Buddha Gaya [Proc 1877, 258]  
 On forged Palí Inscription. [Proc 1877, 266]  
 Remarks on the Early Life of Asoka [Proc 1878, 8]  
 Silver Coins from Burmah, with Remarks on [Proc 1878, 102.]  
 Discovery of a New Era [Proc 1878, 103]  
 Remarks on Photograph of a Sculpture group in Garulmandar Temple at Pathari, Central India [Proc 1878, 123]  
 Remarks on a new Coin of Toramana [Proc 1878, 191]  
 Remarks on a Hindi MSS from Jaipur [Proc 1878, 194]  
 On Representations of Foreigners in the Ajuntá Frescoes [Jl xlvii pt 1, 62]  
 A Copperplate Grant from Bandá [Jl xlvii, pt 1, 73]  
 On the Pála and the Sena Rájás of Bengal. [Jl xlvii pt 1, 384]  
 Description of Gold and Silver Sitarami Coins received from H Rivett-Carnac. [Proc 1879, 64]  
 Notes on a Donative Inscription from Rajaurgarh, near Alwar [Proc 1879, 157]  
 Translation of a Copperplate Inscription from Nirmand in Kulu with a note on the same. [Proc 1879, 212]



- Mitra, Dr. Rajendralala (*contd*)—  
 Note on an Inscription from the Gate of the Krishna Dwaraka Temple at Gaya. [*Proc* 1879, 218]  
 Exhibition of a Collection of Native Paintings [*Proc* 1879, 276]  
 Remarks on Hindi Roots [*Proc* 1879, 281]  
 Exhibition of some very old Palm-leaf MSS., and some Ancient Coins [*Proc* 1880, 4]  
 Remarks on Copper Coins of the Mitra dynasty [*Proc* 1880, 8]  
 Note on Arakan Coins [*Proc* 1880, 53]  
 Remarks on a Pali Inscription from Bharhat [*Proc* 1880, 58]  
 Transcripts and Translations of two Inscriptions from Buddha Gaya [*Proc* 1880, 76]  
 Note on Coins, &c., from Lient R C Temple [*Proc* 1880, 89]  
 On Medal sent by Mr T A M Gennoe [*Proc* 1880, 100]  
 Note on a Palm-leaf MSS of the Setubundha, 672 years old [*Proc* 1880, 119]  
 Exhibition of a facsimile of a Chinese Inscription from Buddha Gaya [*Proc* 1880, 138]  
 Exhibition of two Copperplate Inscriptions from Sylhet [*Proc* 1880, 149]  
 Remarks on Paper on the Calcutta watersupplies, past and present [*Proc* 1880, 153]  
 On Budha Gaya Inscriptions [*Proc* 1880, 172]  
 On Coins sent by Raja Udayaprotapa Sinha [*Proc* 1881, 41]  
 On Hindi Inscriptions from near Monghyr [*Proc* 1881, 42]  
 On the Origin of the Myth about Kerberos [*Proc* 1881, 91]  
 Note on a MS of the Bhattacharya Kavya [*Proc* 1881, 131]  
 Note on a Copperplate Grant from Cuttack [*Proc* 1882, 9]  
 Exhibition of a Collection of Coins of Shah Kings of Saurashtra with remarks [*Proc* 1882, 41]  
 Exhibition of four Silver Coins from Mr Cockburn [*Proc* 1882, 47]  
 On three Clay Seals sent by Mr Carr-Stephen [*Proc* 1882, 114]  
 Remarks on Clay Figures from Tooluk. [*Proc* 1882, 114]  
 Note on a Kutila Inscription from Monghyr. [*Proc* 1883, 46]  
 Reading and Translation of a Sanskrit Inscription from Deoghar [*Proc* 1883, 59]  
 Remarks on Paper on History of Orissa [*Proc* 1883, 69]

- Mitra, Dr. Rajendralala (*contd*)—  
 Note on a Sanskrit Inscription from the Lalitpur District [*Jl* li pt i, 67]  
 On the Temples of Deoghar [*Jl* li pt i, 161]  
 On Gonikáputra and Gonardiya Names of Pátanjali [*Jl* li, pt i, 261]  
*See* GROWSE F S

- Mollendorf, O F von —On a Collection of Japanese *Clausilia* made by Brigade Surgeon R Hangerford in 1881 [*Jl* li pt ii, 1]  
*Clausilia nerulliana*, a new species from the Nicobars [*Jl* li, pt ii, 11]  
 Descriptions of some new Asiatic *Clausilia* [*Jl* li pt ii, 12]  
 Moneeram —Native Account of washing for gold in Assam [*Jl* vii, 621]  
 Money, D —An Account of the Temple of Triveni near Hughli [*Jl* xvi, 393]  
 Montgomerie, Major T G —Memorandum on the Nanga Parbat and other Snowy Mountains of the Himalaya Range adjacent to Kashmir [*Jl* xxvi, 265]  
 Memorandum on the great flood of the river Indus which reached Attock on the 10th August, 1858 [*Jl* xxix, 123]  
 Memorandum in answer to the five questions proposed by Major Becher regarding the flood of the Indus in 1858 [*Jl*, xxix, 112]  
 Memorandum drawn up by the order of Colonel A Scott Waugh Engineers, Surveyor General of India on the progress of the Kashmir Series of the Great Trigonometrical Survey of India; with map and observations on the late Conquest of Gilgit and other incidental matters [*Jl* xxx, 91]  
 Narrative Report of the Trans-Himalayan Explorations made during 1868 [*Jl* xxxix pt ii, 47]  
*See* THILLIER, MAJOR H L  
 Moon and Moon culminating Stars at Seharanpur, Nasirabad and Dhulewar, with the longitudes deduced from Observations of the [*Jl* iii, 297]  
 Moor, Capt Edward —Account of an Hereditary Living Debt to whom devotion is paid by the Brahmins of Poona and its neighbourhood [*16 Rev* vii, 7]  
 Moorcroft, William —A Journey to Lake Minikarora in India, a Province of Little Tibet [*16 Rev* xii, 57]

- Moravy, S — Qualitative Examination of the Native Copper found on Round Island in the Chesubha group south-east of Rangoon and forwarded to the Society by Captain Campbell See Proceedings Asiatic Society for April 1861. [ *H* xii 901 ]
- Morav, Fall of Lightning at. [ *Proc* 1872 170 ]
- Morriesen, Lieut Nasmyth — Tri-section of an Angle. [ *H* ii 71 ]
- Morton Revd W — Remarks on A Comparison of Indo-Chinese Languages &c. [ *H* xii 76 ]
- Mount Dr J — Meteorological Register 1 pt. at Bangalore. [ *H* v 296 ]
- Meteorological Observations taken every hour at Bangalore in the Hospital of H. M. 1<sup>st</sup> Dragoons from 6 A.M. of the 21<sup>st</sup> to 6 P.M. of the 22<sup>nd</sup> March 1866 inclusive in conformity with Sir W. Herschel's instructions. [ *H* v 298 ]
- Muir, J — On the Genuine Character of the Hori Sutra as regards the use of Greek terms. [ *H* xiv, 899 ]
- See ROTH ROBERT
- Muller Max — On the Introduction of Writing into India. [ *H* xxviii 166 ]
- Mukerjen, Upendra Chandra — The Bhadu and the Bauris. [ *Proc* 1873 202 ]
- Mulheran, J — On Cromlechs and Crosses in India. [ *Proc* 1868 115 147 ]
- Munro, Capt — Report on the Timber Trees of Pongil. [ *H* xvi 1095 ]
- Munroe, Dr W — Requesting information regarding the mention of Leprosy by ancient Hindu writers. [ *Proc* 1875, 160 ]
- Mugbura at Hulan — Inscription on the. [ *H* xxiii 549 ]
- Murray, Lieut W G — On a mass of Iron. [ *Proc* 1865, 76 ]
- Murwut Earthquake in. [ *Proc* 1869 161 ]
- Murshedabad, Census of the Population of the city and district of taken in 1829. [ *H* ii 567 ]
- Mussi at Hyderabad — New Bridge over the. [ *H* i 17 ]
- Nagarjuni Cave, Translation of the Inscription in the. [ *H* xv, 594 ]
- Narayan Ram — Translation of the Avedhya-Mahatmya or Pilgrimage of Avedhya. [ *H* xlv, pt. i, 150 ]
- Nash, D W — On Progressive Development in the cold-blooded Vertebrata. [ *H* ii 465 ]
- Natural History, Report on a Collection of objects of. [ *H* ii, 588 ]
- Nepal and Assam, Report of the Society of Arts on specimens of Rice Wool &c from. [ *H* v 365 ]
- Neufville, Capt John Bryan — On the Geography and Population of Assam. [ *1<sup>st</sup> Rec* xvi 551 ]
- Nevill, Geoffrey — On the Land Shells of Bourbon with descriptions of a few New Species. [ *H* xxxix pt ii 405 ]
- List of the *Mollusca* brought back by Dr J. Anderson from Yunnan and Upper Burma with descriptions of New Species. [ *H* xlv, pt ii 14 ]
- New Species of Brackish-water Mollusks. [ *H* xlix pt ii 159 ]
- New or little known *Mollusca* of the Indo-Malayan Fauna. [ *H* i pt ii 125 ]
- Description of a New Species of *Pectelaria* from the Bay of Bengal. [ *H* i, pt ii 262 ]
- Nevill, G & H — On some new Marine Gastropods from the Southern Province of Ceylon. [ *H* xxxviii pt ii 65 ]
- Descriptions of Marine Gastropoda from Ceylon &c. [ *H* xxxviii pt ii 157 ]
- Descriptions of New Marine *Mollusca* from the Indian Ocean. [ *H* xliii pt ii 21 ]
- Descriptions of new *Mollusca* from the Eastern Regions. [ *H* xl pt ii 1 ]
- Descriptions of New Marine *Mollusca* from the Indian Ocean. [ *H* xlv pt. ii 83 ]
- Nevill, H — See NEVILL G
- Notes on *Onchium verruculatum* Cur., from Ceylon. [ *Proc* 1870 304 ]
- Newall, Lieut-Colonel D F — A Sketch of the Mahomedan History of Cashmere. [ *H* xxii 409 ]
- Notes on Pilgrimages in the Country of Cashmere. [ *H* xxxv pt. i 219 ]
- Some Observations on the Temples of Razdan" or ' Razdoing" in the ' Lar Pergunnah Cashmere (with three Plates) [ *H* xxxviii pt. i 177 ]
- Some Account of the Rishis or Hermits of Kashmir. [ *H* xxxix, pt. i 265 ]
- Newbold, Capt J T — A Visit to the Gold Mine at Batting Moring and summit of Mount Ophir or Gunong Ledrug," in the Malay Peninsula. [ *H* ii, 497 ]
- Some Account of the Territory and Inhabitants of Nanning, in the Malayan Peninsula. [ *H* iii 601 ]
- Sketch of the four Menangkabowe States in the interior of the Malayan Peninsula. [ *H* iv, 241 ]

- Newbold, Capt J. T (*contd*)—On the Government and History of Naming in the Malay Peninsula [Jl iv 297]
- Account of Súngie Ujong one of the States in the Interior of Malacca [Jl iv, 517]
- Account of Rumbówe, one of the States in the Interior of Malacca [Jl v, 61]
- Johóle and its former Dependencies of Jompóle Gominchi [Jl v, 257]
- Note on the States of Pérak, Srímenanti, and other States in the Malay Peninsula [Jl v 505]
- Sketch of the State of Muár, Malay Peninsula [Jl v 561]
- Outline of Political and Commercial Relations with the Native States on the Eastern and Western Coasts Malay Peninsula [Jl v, 626]
- Note on the Occurrence of Volcanic Scoria in the Southern Peninsula [Jl v, 670]
- Notes, principally Geological on the Tract between Bellary and Bijapore [Jl xi, 929.]
- Notes, principally Geological from Bijapore to Bellary, via Kannighiri [Jl xi, 941.]
- Geological Specimens offered to the Asiatic Society of Bengal [Jl xi, 1191]
- Note on a recent Fossil Fresh-water Deposit in Southern India, with a few remarks on the origin and age of the Kunker and on the supposed decrease of Thermal Temperature in India [Jl xii, 313]
- Note on the Osseous Breccia and Deposit in the Caves of Billa Scorgum, Lat  $15^{\circ} 25'$ , Long  $78^{\circ} 15'$ , Southern India. [Jl xii, 610]
- Notice of the Ajamb-al-Mukhlukat [Jl xii, 632]
- Notes, chiefly Geological across the Peninsula from Masulipatam to Goa, comprising remarks on the origin of the Regur and Laterite, occurrence of Manganese veins in the latter and on certain traces of aqueous denudation on the surface of Southern India (With a Plate) [Jl xiii 984]
- On the Alpine Glacier Iceberg Diluvial and Wave Translation Theories, with reference to the deposits of Southern India, its furrowed and striated Rocks, and Rock basins [Jl xiv, 217]
- Newbold, Capt J. T (*contd*)—Notes, principally Geological on the South Mahratta country—Falls of Gokauk—Classification of Rocks [Jl xiv, 268]
- Notes, chiefly Geological, across the Peninsula of Southern India from Madras, Lat N  $13^{\circ} 5'$  to Goa Lat N  $15^{\circ} 30'$  by the Baulpilly Pass and Ruins of Bijanugger [Jl xiv, 497.]
- Notes, principally Geological, across the Peninsula of Southern India from Kistapatam Lat  $14^{\circ} 17'$  at the Embouchure of the Coileyroo River, on the Eastern Coast to Honawer, Lat  $14^{\circ} 16'$  on the Western Coast, comprising a visit to the Falls of Garsuppa [Jl xiv 398]
- Notes, chiefly Geological, across the Peninsula from Mangalore, in Lat. N  $12^{\circ} 49'$ , by the Bisly Pass to Madras, in Lat N  $13^{\circ} 4'$  [Jl xiv, 641]
- Notes chiefly Geological, across South India from Pondicherry, Lat N  $11^{\circ} 56'$  to Beypoor, in Lat N  $11^{\circ} 12'$ , through the great gap of Palghat-cherry [Jl xiv 759]
- Notes, chiefly Geological, on the Coast of Coromandel, from the Pennaur to Pondicherry [Jl xv, 204]
- Notes, chiefly Geological, on the Western Coast of South India [Jl xv, 224]
- Notes, chiefly Geological, from Seringapatam, by the Hegulla Pass, to Cannanore [Jl xv, 315]
- Notes, chiefly Geological, from Koompta on the Western Coast (S India) by the Devamunni and Nundi Cunnama Passes, easterly to Cumbum, and thence southerly to Chittoor, comprising a notice of the Diamond and Lead Excavations of Buswapur [Jl xv, 380]
- Notes chiefly Geological, from Gooty to Hyderabad South India comprising a brief notice of the old Diamond Pits at Dhone [Jl xvi 477]
- Niceville, L de — See DENICEVILL, L
- Nicobars, Extraordinary Meteor observed at the [Proc 1874, 176]
- Nietner, John — Entomological Papers, being descriptions of new Ceylon Coleoptera with such observations on their habits as appear in any way interesting [Jl xiv 381 523]
- Entomological Papers [Jl xxvi 1-2]
- Nipalese Zoology, Illustrations of, [Jl iv, 521]

- Nizamut Palace of Moorsshedabad — Extracts from official records with descriptive details regarding the new — erected by Colonel D McLeod, Chief Engineer of Bengal [ *H* viii 552
- Noek — Report on the Road from Sindu from Subul to Shukarpoor [ *H* xii 59
- Noton, Ben — Table showing the Rise of Spring Tides in Bombay Harbour during night and day, for the year 1852 [ *H* ii 247
- N W Frontier Note and Tabular Statement [ *H* x 476
- N W Frontier, Trade with Afghanistan — On Tabular Returns of the [ *H* x 251
- Nowiojee, Furdoonjee — Report on the Weights Measures and Coins of Cabul and Bukhara [ *H* vii, 892
- Oakes, Col — Letter relating the discovery of Flint Implements at Subulpoor [ *Proc* 1869 51
- Obbard, J — On the Translation of Waves of Water with relation to the great flood of the Indus in 1858 [ *H* xxix, 266
- O'Donel, J B — Notes on the Tribes of the Eastern Frontier, Nos 1 & 2 See RYANOLD, H J [ *Jl* xxxii 100, 404
- O'Donnell, C J — Note on Mahāsthan near Bagura (Bogra) Eastern Bengal [ *Jl* xlv, pt. i, 183
- O'Kinealy, J — Translation of an Arabic pamphlet on the history and doctrines of the Wahhabis written by the grandson of Abdul Wahhab, founder of the sect [ *H* xliii, pt. ii, 68
- Oliver, Lieut-Col Thos — Abstract of Observations of the Temperature Pressure, and Hygrometrical State of the Air in the Vicinity of Delhi [ *Jl* i 506
- Abstracts of Observations of the Temperature, Pressure and Hygrometrical State of the Air at Nasirabad [ *Jl* ii 128
- Culminating Stars observed with the Moon at Nasirabad [ *Jl* ii 432
- Latitude of the Church Bungalow at Nasirabad by Altitudes (170) of Polaris out of the Meridian, observed with a Troughtons 18 inch Altitude and Azimuth Circle [ *Jl* iii 243
- Longitude of Nasirabad by Lunar Transits and by Observations of Moon-culminating stars [ *Jl*, iv, 52.
- Oldham, Thomas — Notes upon the Geology of the Rajmahal Hills, being the result of Examinations made during the cold season of 1852 & 53 [ *H* xxiii 263
- Note on the Fossils in the Society's Collection reputed to be from Spiti [ *H* xxviii 232
- On Stone Implements from Madras [ *Proc* 1865, 206
- On Meteorite from Klein Menow [ *Proc* 1868, 203, 208
- On Copper Implements found in Mainpuri [ *Proc* 1868 251
- Notes on the Earthquake of January 10th 1869 [ *Proc* 1869 113
- Notes on the Remains found in a Cromlech at Coorg [ *Proc* 1869, 226
- Observations on Paper on the Normal Rainfall of Bengal [ *Proc* 1870, 225
- Oldham, W — On a Shower of Earth [ *Proc* 1868 182
- Memorandum on the action of the Ganges [ *Proc* 1868, 229
- See BAKER MAJOR W E
- Ommanney, Capt E L — Note on Patna Boulders [ *Jl* xix, 136.
- Ophir, Note on the Botanical Specimens from Mount [ *Jl* iii, 48
- Ord, Capt — Extract from a Meteorological Journal kept at Kandy, Island of Ceylon. [ *Jl* iv, 709
- O'Reiley, E — Remarks on the "Lake of Clear Water" in the district of Bassein, British Burmah [ *Jl* xxxiii, 39.
- Osborne, George — Report of a Visit made to the supposed Coal-Field at Bidjeegurh (Vijayagadah) [ *Jl* vii, 839
- O'Shaughnessy, Dr W B — On the Detection of Arsenical Poisons, &c, &c [ *Jl* viii, 147
- Memoranda relative to experiments on the communication of Telegraph Signals by Induced Electricity [ *Jl* viii, 714.
- Extract from a Memoir on the Preparations of the Indian Hemp or Gunjah (*Cannabis Indica*), their effects on the Animal System in Health, and their utility in the Treatment of Tetanus and other Convulsive Diseases [ *Jl* viii, 792, 838
- Memorandum on the Explosion of Gunpowder under Water by the Galvanic Battery, with a notice of the successful destruction of the "Equitable" at Pultah Reach [ *Jl* viii, 351.

Piddington, Henry (*contd*)—A third Notice on the Ball Coal of the Burdwan Mines [Jl xix, 75]

Examination and Analysis of an orange-yellow Earth brought from the Sikkim Territory, by Dr Campbell, Darjeeling and said to be used there as a cure for Goitre

[Jl xix, 143.]

On Calderite, an undescribed Siliceo-Iron-and-Manganese Rock, from the district of Burdwan

[Jl xix, 145]

Memorandum relative to the Storms of Wind experienced in Tartary, with suggestions relative to them, for the Mission proceeding there

[Jl xix, 242]

A Nineteenth Memoir on the Law of Storms in the Indian and China Seas, being the Cyclones of the *Sir Howard Douglas* and of *H M Brig Jumna* in the Southern Indian Ocean January to April 1848

[Jl xix, 349]

Examination of the New Mineral Haughtonite (a compound of Carbonate of Lead and Sulphate of Barytes)

[Jl xix, 452]

Detailed Report on the Copper Ores of the Deoghur Mines

[Jl xx, 1]

A Twentieth Memoir on the Law of Storms in the Indian and China Seas, being the April Cyclone of the Bay of Bengal, 23rd to 28th April, 1850

[Jl xx, 13]

On the Rates of Chronometers, as influenced by the Local Attraction of Ships and by Terrestrial Magnetism

[Jl xx, 61]

On a Series of Calderite Rocks

[Jl xx, 207]

On the Comparative Action of the Marine and Aneroid Barometers and Simplesometer in Cyclones

[Jl xx, 219]

Examination and Analysis of the *Shalka Meteorite* (Zillah West Burdwan)

[Jl xx, 299]

Second Notice on the Argentiferous Ores of Deoghur

[Jl xxi, 74]

On Hircine, a new Resin

[Jl xxi, 76]

A Table of Analyses of Indian Coals

[Jl xxi, 270]

A Twenty-first Memoir on the Law of Storms in the Indian and China Seas, being the Cyclone of *H M S Fox*, in the Bay of Bengal 30th April to 6th May, 1851

[Jl xxi, 283]

Apparatus for distilling off the Mercury from an Amalgam of Gold or Silver

[Jl xxi, 403]

Piddington, Henry (*contd*)—On Filtering the Waters of Tanks, in large quantities, for the use of Towns

[Jl xxi, 473]

On a Geometrical Measurement of the distances from Crest to Crest of the Barometric Waves in a Cyclone.

[Jl xxii, 77]

Supplementary Notice on the new Mineral Resin, *Hircine*

[Jl xxii, 279]

A Twenty-second Memoir on the Storms of the Indian and China Seas, Cyclones and Tornadoes of the Bay of Bengal, from 1848 to 1852

[Jl xxii, 1]

On Nepaulite a new Mineral from the neighbourhood of Kathmandoo

[Jl xxiii, 170]

On the Quantity of Silt held in suspension by the waters of the Hooghly at Calcutta in each month of the year

[Jl xxiii, 283]

Examination and Analysis of four Specimens of Coal from the neighbourhood of Darjeeling, forwarded by A. Campbell, Esq, Supdt.

[Jl xxiii, 381]

Examination and Analysis of Dr Campbell's Specimens of Copper Ores obtained in the neighbourhood of Darjeeling

[Jl xxiii, 477]

A Twenty-third Memoir on the Law of Storms in the Indian and China Seas, being the Peninsular and Oriental Steam Navigation Company's ship *Precursor's* Cyclone of October, 1851

[Jl xxiii, 505]

Examination and Analysis of two Specimens of Coal from Ava

[Jl xxiii, 714]

Memorandum on an unknown Forest Race (of Indian Vedas?) inhabiting the Jungles south of Palamow, and on the deserted city of Dhoolmee in Manbhoom

[Jl xxiv, 207]

Memorandum on the Kunkars of Burdwan as a flux for smelting the Iron Ores, and on some smeltings of Iron Ores by Mr Taylor, of that district

[Jl xxiv, 212]

Report on two Specimens of Cuttack Coal from the Talcheer Mine, forwarded by E A Samuells, Esq, Commissioner of Cuttack

[Jl xxiv, 210]

Examination and Analysis of a Coal from Cherra Punji received from Messrs Gilmore and McKilligan

[Jl xxiv, 283]

Piddington, Henry (*contd*) — A Twenty fourth Memoir on the Law of Storms being the *Calcutta* and *Sunderbund Cyclone* of 14th and 15th May 1852 [Jl xxiv 397]

A Second Series of Experiments to ascertain the mean quantity of Silt held in suspension by the waters of the Hooghly in various months of the year as also the quantity carried out to sea With an Appendix on its sectional Area and average Discharge [Jl xxi, 151]

Examination of three Specimens of Bengal Mineral Waters [Jl xxx 190]

A Twenty fifth Memoir on the Law of Storms in India being the II Company's Steamer *Pinto's* Cyclone in the Gulf of Martaban 23rd and 24th April 1854 [Jl xxvii 177]

See CAMBELL, Dr A, JULIUS STANISLAS

Pigou, Lieut — On the Topes of Darcountra and Caves of Bahrabad [Jl x 381]

Piplianagar — Translation of a Lumber Patra which was found in a field of the village of in the Shujalpur Pargana by a *Trisa* engaged in ploughing and presented to Mr L Wilkinson the Political Agent at Bhopal, by the Jagirdar [Jl v, 377]

Playfair, John — Questions and Remarks on the Astronomy of the Hindus [Jl Rec iv 159]

Pogson, N R — Discovery of the New Planet '*Axia*' [Jl xxx 291]

Polier, Lieut-Col — The Process of making Attar, or Essential Oil of Roses [Jl Rec i, 332]

Postans, Lieut J — Account of the Ruins and Site of Old Mandavi in Raepur and legend of Vikramāditya's son in Cutch [Jl vi 618]

Account of the Expedition of Chach (Chachr), extracted from the Chach Nameh and extracts from the Tōhfat-ul-Khwān [Jl vii 93]

Extracts from the Tōhfat-ul-Kiram, and the Chach Nameh, translated [Jl vii 297]

An Account of the Jain Temple at Badrasir and Ruins of Badranagiri in the province of Cutch [Jl vii 491]

Memorandum on the Silk Trade between Shikarpore and Khorassan, and on the Produce of Indigo in Sindh [Jl ix 843]

Memorandum on the Trade between the Towns of Shikarpore and Candahar [Jl x, 12]

Postans, Lieut. J (*contd*) — Memorandum on the city of Shikarpore, in Upper Sindh [Jl x, 17]

Of the early History of Sindh, from the "Chuch Namuh" and other authorities [Jl x, 183, 267]

Report on Upper Sindh and the Eastern portion of Cutchee with a Memorandum on the Beloochee and other Tribes of Upper Sindh and Cutchee and a Map of part of the Country referred to [Jl xii 23]

Translation of the Toofut-ul-Kiram a History of Sindh [Jl xiv, 75 155]

Postans, Lieut, and Kittoe — Notes of a Journey to Girnār in the province of Kattywār for the purpose of copying the ancient Inscriptions upon the rock near that place — Undertaken by order of the Bombay Government, with two Notes on Somnath, one by Mr Kittoe [Jl vii 865]

Powel, Lieut T — Description of Heavandoo Pholo the Northern Atoll of the Maldive Islands [Jl ix 319]

Prasadh, Surodha Pundit — Literal Translation of the Vasant-Gurh Inscription [Jl x, 819]

Pratt, Ven'ble Archdeacon J H — Observations on the Herat Astrolabe, described in No 118 of the Journal. [Jl xi, 720]

Memoir upon the Quantity of Iron necessary in a Tension Chain Bridge [Jl xvii, pt 1, 1]

Note on Iron Tension Bridges [Jl xviii 249]

On the Influence of Mountain-Attraction on the determination of the relative heights of Mount Everest, near Darjeeling and the lofty peak lately discovered near Kashmir [Jl xxviii, 310]

The Great Indian Arc of Meridian, and the Figure of the Earth [Jl xxvii, 201]

A second Letter on the Indian Arc [Jl xxviii, 22]

On the Physical Difference between a rush of Water like a torrent down a channel and the transmission of a Wave down a river — with reference to the Inundation of the Indus, as observed at Attock, in August 1858 [Jl xxxi, 274]

On Colebrooke's determination of the Date of the Vedas [Jl xxxi, 49]

Memorandum showing the final result of calculations regarding the effect of Local Attraction upon the operations of the Great Trigonometrical Survey of India [Jl xxxi, 146]

- Pratt, Ven'ble Archdeacon J H  
(*contd*)—On Local Attraction  
[*Proc* 1865 88  
On the Degree of uncertainty which  
Local Attraction, if not allowed for,  
occasions in the Map of a country,  
and in the Mean Figure of the  
Earth, as determined by Geodesy, a  
method of obtaining the Mean  
Figure free from ambiguity by a  
comparison of the Anglo-Gallic,  
Russian and Indian Arcs, and Spec-  
ulations on the constitution of the  
Earth's Crust [*Jl* xxxiv pt ii, 34  
See TENNANT, J T (OF F P)
- Pratt—Extract of a Letter on a recent  
Destructive Storm in the neighbour-  
hood of Ishwarganj  
[*Proc* 1875, 128
- Precious Minerals, Oriental Accounts  
of the [*Jl* i, 553
- Precious Stones, Short Description of  
the Mines of, in the district of Kyat-  
pyen, in the kingdom of Ava  
[*Jl* ii, 75
- Presgrave, Col D—Application of  
Iron Rods, proposed to compensate  
for the strain occasioned by the  
tension of the strings upon Panno-  
Fortes, thereby to prevent warping,  
and to render them more durable  
and better adapted to keep longer  
in tune [*Jl* iv, 643
- Price, Lieut W—Translation of a  
Sanskrit Inscription on a stone  
found in Bundelkund  
[*As Res* xii, 357
- Prichard, Dr—Tibetan Type of Man-  
kind. [*Jl* xvii, pt ii, 580
- Prideaux, Major W F—On the  
Coins of Charibael, king of the  
Homerites and Sabæans (With a  
Plate) [*Jl* i pt i, 95
- Prinsep, G A—Abstracted Results of  
Marine Observations  
[*As Res* xv, 15  
On the Temperature and Saltness of  
the River Hugli, from Calcutta to  
the Sea [*Jl* i, 104  
On a remarkable Heat observed in  
masses of Brine kept for some time  
in large reservoirs [*Jl* vii, 207  
On the spontaneous heating of Brine  
[*Jl* vii, 1014
- Prinsep, H T—Estimate of the Risk  
of Life to Civil Servants of the  
Bengal Presidency, in each year of  
their Residence in India [*Jl* i, 277  
Corrected Estimate of the Risk of Life  
to Civil Servants of the Bengal  
Presidency. [*Jl* vi, 341
- Prinsep, H. T. (*contd*)—Table of Mor-  
tality for Ages from birth to twenty  
years framed from the Registers of  
the Lower Orphan School Calcutta  
[*Jl* vii, 818  
Account of Tamba Patra Plates dug  
up at Baroda, in Goojrat, with  
Facsimile and Translation  
[*Jl* viii, 292  
Note on the Passes into Hindoostan  
from the West and North-west and  
the use made of them by different  
conquerors [*Jl* xi, 552
- Prinsep, James—Meteorological  
Journal [*As Res* xv, 7  
Description of a Pluviometer and an  
Evaporimeter constructed at Ben-  
ares [*As Res* xv, 13  
Analysis of a Mineral Water  
[*As Res* xv, 14  
Census of the Population of the city  
of Benares [*As Res* xvii, 470  
Note on the Discovery of Platinum in  
Ava [*As Res* xviii, pt ii, 279  
Examination of Minerals from Ava  
[*Jl* i, 14  
Note on the Magic Mirrors of Japan  
[*Jl* i, 242  
On the Ancient Roman Coins in the  
Cabinet of the Asiatic Society  
[*Jl* i, 392.  
Observations of the Transit of Mer-  
cury [*Jl* i, 408  
Note on the Jabalpur Fossil Bones  
[*Jl* i, 456  
On the Greek Coins in the Cabinet of  
the Asiatic Society [*Jl* ii, 27  
Determination of the Constant of  
Expansion of the Standard 10-foot  
Iron Bar of the Great Trigonometrical  
Survey of India, and Ex-  
pansion of Gold, Silver and Copper  
by the same Apparatus [*Jl* ii, 130  
Table for Ascertaining the Heights of  
Mountains from the boiling point  
of Water [*Jl* ii, 194  
Description of a Compensation Baro-  
meter, and Observations on Wet  
Barometers [*Jl* ii, 258  
Note on Lieut Burnes' Collection of  
Ancient Coins [*Jl* ii, 310  
Bactrian and Indo-Scythic Coins  
[*Jl* ii, 405  
Note on the extraordinary fall of the  
Barometer during the Gale of the  
21st May last [*Jl* ii, 427  
Chemical Analyses [*Jl* ii, 434  
Additional Note on the Climate of  
Nagpur [*Jl* ii, 542  
Note on the Fossil Bones discovered  
near Jabalpur [*Jl* ii, 583

Prinsep, James (*contd*)—Note on Inscription No 1 of the Allahabad Column [Jl iii, 114  
 Experiments on the Preservation of Sheet Iron from Rust in India [Jl iii, 191  
 Note on the Coins found by Captain Cautley at Behat [Jl iii, 227  
 On the Coins and Relics discovered by M Chevalier Ventura, General in the service of Mahá Rájá Ranjit Singh, in the Tope of Manikyála [Jl iii, 313  
 Note on the Fossil Bones of the Nerbudda Valley, discovered by Dr G G Spilsbury near Nersinh-púr, &c [Jl iii, 396  
 Continuation of Observations on the Coins and Relics discovered by General Ventura in the Tope of Manikyála [Jl iii, 436  
 Note on the Mathiáth Lath Inscription [Jl iii, 483  
 Second Note on the Bhilsa Inscription [Jl iii, 488  
 Inscription on the Iron Pillar at Delhi [Jl iii, 494  
 Note on the Coins discovered by M Court [Jl iii, 562  
 Note on the Brown Liquid contained in the Cylinders, from Manikyála [Jl iii, 567  
 Further particulars of the Sarun and Tirhoot Laths, an Account of two Buddha Inscriptions found, the one at Bakhra, in Tirhut, the other at Sarnath, near Benares [Jl iv, 124  
 Further Notes and Drawings of Bactrian and Indo-Scythic Coins [Jl iv, 327  
 Note on the Fossil Bones of the Jumna River [Jl iv, 500  
 Chemical Analyses [Jl iv, 509  
 Diary Meteorological Observations made at Calcutta on the 21st to 22nd September [Jl iv 514  
 Analysis of Copper Ore from Nellore with Notice of the Copper Mines at Ajmír and Singhána [Jl iv, 574  
 On the connection of various Ancient Hindu Coins with the Grecian or Indo-Scythic series [Jl iv, 621  
 Notice of Ancient Hindu Coins [Jl iv, 668  
 Various Ancient Inscriptions [Jl v, 340, 482, 551, 657, 724 795, vi, 218, 278, 663, 869, vii, 33, 901, 966  
 Experimental Researches on the Depressions of the Wet-bulb Hygrometer [Jl v, 396

Prinsep, James (*contd*)—New Varieties of Bactrian Coins engraved from Mr Masson's Drawings and other sources [Jl v, 548  
 New Varieties of the Mithraic or Indo-Scythic Series of Coins and their imitations [Jl v, 639  
 New Types of Bactrian and Indo-Scythic Coins [Jl v, 720  
 Note on the Nautical Instruments of the Arabs [Jl v, 784  
 A Comparative View of the daily range of the Barometer in different parts of India [Jl v, 816  
 Postscript to the Memoir on the Depression of the Wet-bulb Thermometer published in the July number [Jl v, 828  
 Specimens of Hindu Coins descended from the Parthian type, and of the Ancient Coins of Ceylon [Jl vi, 288  
 The Legends of the Saurashtra group of Coins deciphered [Jl vi, 377  
 Note on the Facsimiles of Inscriptions from Sanchi near Bhilsa, taken for the Society, by Captain Ed Smith, Engineers, and on the Drawings of the Buddhist Monument presented by Captain W Murray at the meeting of the 7th June [Jl vi, 451  
 Interpretation of the most ancient of the Inscriptions on the pillar called the Lat of Feroz Shah, near Delhi, and of the Allahabad Radhia and Mathiáth Pillar, or Lát, Inscriptions which agree therewith [Jl vi, 566  
 Account of an Inscription found by Mr H S Boulderson in the neighbourhood of Bareilly [Jl vi, 777  
 Further elucidation of the Lát or Silasthambha Inscriptions from various sources [Jl vi, 790  
 Note on the Facsimiles of the various Inscriptions on the ancient column at Allahabad, retaken by Captain Edward Smith [Jl vi, 963  
 Note on Inscription at Udayagiri and Khandgiri, in Cuttack, in the lât character [Jl vi, 1072  
 Discovery of the name of Antiochus the Great, in two of the Edicts of Asoka, king of India [Jl vii, 156  
 On the Edicts of Piyadasi, or Asoka, the Buddhist monarch of India, preserved on the Girnar rock in the Gujerat Peninsula and on the Dhruvi rock in Cuttack, with the discovery of Ptolemy's name therein [Jl vii, 219





Ravenshaw E C (*contd*)—Notice of an Inscription in Behar

[*Jl* ix 65

The Avatar of Vishnu An Abstract Translation from the Padma Purāṇa

[*Jl* xi 1112

Memorandum on the Construction of a Portable Meridian

[*Jl* xii 457

Memorandum on the Ancient Bed of the River Sonue and Site of Palibothra

[*Jl* xii, 137

Riverty, Lieutenant H G—Some remarks on the origin of the Afghan People and Dialect and on the connexion of the Pushtu language with the Zend and Pahlavi and the Hebrew

[*Jl* xxiii, 350

Account of a Visit to the Shrine and Town of Sakhi Sarwar in the Lower Derajat with a Notice of the Annual Mela or Fair held there

[*Jl* xxiv 129

Notes on Kokan Kashghar Yarkand, and other places in Central Asia

[*Jl* xxvi, 257

An Account of the Mountain District forming the western boundary of the Lower Derajat commonly called *Roh* with Notices of the Tribes inhabiting it

[*Jl* xxvi 177

Notes on Kafiristan

[*Jl* xxviii, 317

An Account of Upper and Lower Suwat and the Kohistan to the source of the Suwat River with an Account of the Tribes inhabiting those valleys

[*Jl* xxxi 227

An Account of Upper Kish-kar and Chitral or Lower Kash-kar, together with the Independent Afghan State of Panj-korah including Tillaash

[*Jl* xxxiii, 125

On the Language of the Siyah-posh Kafirs with a short list of words, to which are added specimens of Kohistani and other dialects spoken on the northern border of Afghanistan &c.

[*Jl* xxxviii 267

Who were the 'Patān' or Pathan Sultans of Dehli?

[*Jl* xlv pt. 1, 24

Reply to several passages in Mr Blochmann's 'Contributions to the History and Geography of Bengal' No III

[*Jl* xlv, pt 1, 525

Memoir of the Author of the *Tarikhāt-Nāsirī*.

[*Jl* l, pt 1, 77

Rawlins, John—On the Manners Religion and Laws of the Gúefs, or the mountaineers of Tiperrah

[*As Res* ii, 187

Rebellion, Report of a Trial for, held at Moulmein by the Commissioner of Tenasserim Communicated by the Sudder Dewanny Adawlat

[*Jl* xiv, 747

Receipt Book—Extracts from a Native

[*Jl* i 155

Ríva Kumára Chundranáth on an Inscription found in Ríjshahí

[*Proc* 1868 163

Reckendorf Siegmund—Notes on the Pokree and Dhanpoor Copper Mines in Gherwal

[*Jl* xiv, 471

Rees, Ludwig E—See ROTH Dr R

Reid, Lieutenant-Colonel—A Note on the Winds as influencing the Tracks sailed by Bermuda Vessels, and on the advantage which may be derived from sailing on Curved Courses when meeting with Revolving Winds

[*Jl* xii 1104

Reynolds, Captain C S—A Narrative of our Connexions with the Dusannee and Cherunee Garrows with a short Account of their Country

[*Jl* xviii 45

Reynolds, H J—Notes on the Tribes of the Eastern Frontier No III.

See O DONELL J H

[*Jl* xxxii 407

Rhodes, Dr W—Climate of Chirra Panji

[*Jl* i 297

Richardson, Captain David—An Account of the Bizeegurs a sect commonly denominated the Nuts

[*As Res* vii, 457

Richardson, Dr D—Journal of a March from Ava to Kendat on the Khven dwen River performed in 1831 under the orders of Major H Burney, the Resident at Ava

[*Jl* ii 59

The History of Labong from Native Records

[*Jl* vi 55

Abstract Journal of an Expedition from Moulmein to Ava through the Kareen country between December 1836 and June 1837

[*Jl* vi 1005

Journal of a Mission from the Supreme Government of India to the Court of Siam

[*Jl* viii, 1016, ix, 1, 219

See BLUNDELL E A.

Rigny, Lieutenant—Memorandum on the usual Building Materials of the district of Cuttack forwarded to the Museum of Economic Geology, with a set of Specimens

[*Jl* xi, 836

Rivett, Carnac H—Remarks on Rude Stone Monuments in Chutiá Nigpúr

[*Proc* 1873, 151

- Rivett, Carnac H (*contd*)—Rough Notes on some Ancient Sculpturings on rocks in Kumaon similar to those found on monoliths and rocks in Europe [*Jl* xlvii pt 1. 1.  
Figure of Buddha recently found at Sarnath [*Proc* 1878 66  
On 3 Hindoo and 3 Muhammadan Coins [*Proc* 1879 64  
Memorandum on administrative rules for the Protection of Indian Antiquarian Remains [*Proc* 1879 65  
2nd Memorandum on the Preservation of Antiquarian Remains [*Proc* 1879, 153  
Description of some Stone Carvings collected in a Tour through the Doab, from Cawnpore to Mainpuri [*Proc* 1879, 189  
Prehistoric Remains in Central India [*Jl* xlviii, pt 1. 1  
The Snake Symbol in India especially in connection with the worship of Siva [*Jl* xlviii, pt 1, 17  
Exhibition of a Metal Celt sent by [*Proc* 1880, 70  
Memorandum on Buddhist Copper Coins and Coins of the Sunga Dynasty [*Proc* 1880 71  
Memorandum on Clay Discs, Spindle Whorls, &c [*Proc* 1880, 115  
Exhibition of Roman Indo-Scythian and Gupta Coins, belonging to Col Berkeley, and sent by [*Proc* 1880, 118  
On Coins from Jellalabad and Rewah [*Proc* 1880 170  
Memorandum on Coins of the Sunga Dynasty (With three Plates) [*Jl* xlix, pt 1, 87  
Memorandum on Clay Discs called "Spindle Whorls" and Votive Seals found at Sankisa Behar and other Buddhist ruins in the North-Western Provinces of India [*Jl* xlix, pt. 1, 127  
Note on some Copper Buddhist Coins [*Jl* xlix, pt 1, 138  
Exhibition of Stone Implements by [*Proc* 1882, 6  
Memorandum on a Brass-casting of the Arms of the old East India Company [*Proc* 1883 79  
Note on some Geological Specimens received from Prof Dr Fischer [*Proc* 1883 79  
Note forwarding some Relics from Er-Lannig, and a Memorandum on the same by the Count de Lamur [*Proc* 1884, 110  
Exhibition of a Clay Seal, sent by [*Proc* 1883, 113

- Rivett, Carnac H (*contd*)—On Stone Implements from the North-Western Provinces of India [*Jl* lu pt 1 221  
Roberts, Major R E—Specimen of the Language of the People inhabiting the Hills in the vicinity of Bhagulpoor [*1st Res* v 127  
Robinson, Capt G H—Meteorological Register kept at Kathmandoo for the month of March 1844 Valley of Nepal [*Jl* xii, 768  
Robinson, Wm—Notes on the Languages spoken by the various Tribes inhabiting the valley of Assam and its mountain confines [*Jl* xviii, 183 310  
Notes on the Dophlās and the peculiarities of their Language [*Jl* xx 126  
Notes on the Languages of the Mishmis [*Jl* xxiv 307  
Rodgers, C J—Note on the Death of Humāyūn [*Jl* xl pt. 1, 133  
Coins of Khusrān Shāh and Kharrān Malik, the Ghaznavi Kings of Lahore [*Proc* 1879 178  
The Copper Coins of the old Mahārājās of Kashmir [*Jl* xlviii pt 1 277  
The Copper Coins of the Sultans of Kashmir [*Jl* xlviii pt 1 282  
The Coins of the Mahārājās of Kāngra [*Jl* xlix pt 1 10  
Coins supplementary to Thomas' "Chronicles of the Pathan Kings of Delhi" [*Jl* xlix pt. 1 81 207  
A find of Coins struck by Gurni Sultans in Lahore [*Proc* 1881, 4  
Copper Coins of Akbar [*Jl* xlix, pt 1, 213  
On the Coins of the Sikhs [*Jl* 1 pt 1, 71  
Notes on a List of Silver Coins of Aurangzeb Alamgir [*Proc* 1883, 11  
"Nisār" Coins sent by [*Proc* 1883 79  
Note on a "Nisār" of Shah Jahan in the Delhi Museum. [*Proc* 1883 112  
Coins supplementary to Thomas' "Chronicles of the Pathan Kings of Delhi" No III [*Jl* lu, pt 1 77  
The Rupees of the Months of the Hāhī Years of Akbar [*Jl* lu pt 1 97  
Roepstorff, F A de—A short History of Andamanese Text-words [*Proc* 1879 178  
Notes on the Inhabitants of the Nicobars [*Proc* 1876, 112, 1881, 7, 101

- Roer, Dr E—Report made by J Mohl in the General Meeting of the Asiatic Society of Paris 31st May 1841 on the labours of the Committee during the six last months of 1840 and the six first months of 1841, translated from the French [Jl xi 411]
- Descriptive List of some Coins lately received from the University of Christiana by the Asiatic Society [Jl xii 44]
- Bhāṣṇe Achārve Siddhanta Shiro nāma sic dicti operis pars tertia Gunitadham sive astronomiam continens Latine vertit notaque adjacit E Roer [Jl xiii 53]
- Index to History of the Toorks, by Baron Hammer Von Purgstall [Jl xiii 550]
- Vedānta Sāra or Essence of the Vedānta An Introduction to the Vedānta Philosophy by Sadenandra Parivrajacharya, translated from the original Sanscrit [Jl xiv 100]
- Review of L'histoire du Buddhism Indien, par L Burnouf [Jl xiv 783]
- Bhāṣha Parichēda, or Division of Language A logical Treatise translated from the Sanscrit [Jl xvi 157]
- Review of "A Lecture on the Sankhya Philosophy embracing the text of Tattvasamāsa by Dr J R Ballantyne, Mirzapore, 1850 [Jl xv 397]
- Bibliographical Notes on the published Upanishads with suggestions upon the publications of those which remain unedited [Jl xxiv 38]
- Rogers, Capt T E—Correspondence regarding the Coal Beds in the Namsang Nago Hills [Jl xvii pt 1 489, xviii 489]
- Roman Alphabet on the adaptation to the Orthography of oriental languages [Jl iii 281]
- Ross, Capt D—Memoranda regarding the Difference between Morning and Evening Altitudes for ascertaining the Apparent Time on boardship [Jl i 202]
- Ross, Lt-Col E C—An Account of tenets of the Ibadhi sect of Oman [Proc 1875, 2]
- Annals of Oman, from early times to the year 1725 A.D From an Arabic MS [Jl xliii pt 1 111]
- Ross, Dr E M—On Ethnology of Travancore and Cochin [Proc 1866, 242]
- Roth, Dr Rudolph—On the Literature and History of the Veda Three Treatises by Rudolph Roth Ph Dr Stuttgart 1846 (Translated by J Muir, Esq C S) [Jl xvi 812]
- The most ancient Grammar of the Vedas or the "Prātiakhya sutren" Translated from the German by Ludwig E. Rees [Jl xvii, pt. 1 6]
- Route Protraction, A method of rectifying a [Jl i 19]
- Row, Dr J—Geological Remarks during the March from Benares (Old Road) via Hazareebagh, Bankoor and Burdwan to Barrackpore [Jl xiii 862]
- Rowlatt, Lieut E A.—Report of an Expedition into the Mishmee Hills to the north east of Sudrah [Jl xiv, 477]
- Roxburgh, Dr William—Flora Indica, or Descriptions of Indian Plants [Jl i, 131]
- On the Lacshū, or Lac Insect [As Res ii 361]
- A Description of the Plant Buter [As Res iii, 469]
- A Description of the Jonesia [As Res iv 355]
- Prosopis aculeata König Psidium of the Hindus in the Northern Sircars [As Res iv 405]
- Botanical Observations on the Spike-nard of the ancients intended as a Supplement to the late Sir William Jones's paper on that plant. [As Res iv 433]
- A Botanical Description of Urecola elastica, or Crout-chouc Vine of Sumatra and Pullo-pinang, with an Account of the properties of its inspissated juice compared with those of the American Crout-chouc [As Res v 167]
- An Account of a new Species of Delphinus an inhabitant of the Ganges [As Res vii 170]
- A Botanical and Economical Account of Bassia Butyracea or East India Butter Tree [As Res viii 477]
- Descriptions of several of the monardrous Plants of India belonging to the natural order called Scitaminea by Linnaeus Canna by Jussien, and Drimyrhiza by Ventenat [As Res xi, 318]
- Royle, Dr J Forbes—Account of the Honorable Company's Botanic Garden at Schāranpur [Jl i, 41]

- Royle, Dr J Forbes (*contd*)—Extracts from Explanatory Address on the Exhibition of Dr Royle's Collections in Natural History at the Meeting of the Asiatic Society on the 7th March [*Jl* 1, 96]
- List of Articles of Materia Medica obtained in the Bazars of the Western and Northern Provinces of India [*Jl* 1, 458]
- Illustrations of the Botany and other Branches of the Natural History of the Himálayan Mountains and of the Flora of Kashmír [*Jl* iii, 530]
- Observations on the Graphite or Plumbago of Kumaon and of Travancore (Communicated by the Government of India) [*Jl* xxiv, 203]
- St Barbe, H L—Pah Derivations in Burmese [*Jl* xlviii, pt 1, 253]
- St John, H C—Remarks on Winds, Typhoons, &c, on the south coast of Japan [*Proc* 1872, 205]
- St John, R F—Letter relative to some Burmese and Arracanese Celts [*Proc* 1871, 83]
- St Peter's Church in Fort William, On the method employed to remove the Vaulted Roof of [*Jl* v, 208]
- Sale, Lt, on Spheres of Sandstones found in Cachar [*Proc* 1868, 90]
- Samuells, E A—A Visit to the Rock-cut Temples of Khandgiri [*Jl* xxv, 222]
- Notes on a Forest Race called Puttoos or Juanga, inhabiting certain of the Tributary Mehals of Cuttack [*Jl* xxv, 295]
- Samuells, J H—Notice of Old Temples near Harchoka [*Proc* 1871, 57]
- Samuells, Capt W L—Letter on Two Copper Axes [*Proc* 1871, 231]
- Letter on the Rock and Temples at Harchoka, Chutia Nágpur [*Proc* 1871, 236]
- The Rock-cut Excavations at Harchoka, discovered by Capt W L Samuells when employed as Boundary Commissioner on the Rewah and Chutia Nágpur Frontier, season 1870-71 [*Jl* xl, pt 1, 177]
- The Legend of Bághesar, a deified spirit held in great reverence by the Kúsrí, Súri, Markám, Netá, and Sársún clans of the Gond Tribe [*Jl* xli, pt 1, 115]
- Sanders, Capt Edw—Route from Candahar to Herat From the Political Secretariat of the Government of India [*Jl* xiii, 121]
- Sarel, Lieut-Col—Notes on the River Yang-tse-Kiang from Hankow to Pingshan [*Jl* xxx, 223]
- Sarman, Radhacanta—Inscriptions on the staff of Firúz Shah [*As Res* 1, 379]
- Sarnath—Correspondence relating to the Exploration of the Ruins of. [*Jl* xxv, 395]
- Sastri, Prof Bapudeva—On recorded Solar Eclipse [*Proc* 1867, 174]
- Satlej—Table shewing the breadth of the river and the rate of its current at different stages, from Harrike Pattan to its junction with the Indus at Mithankot [*Jl* v, 814]
- Saxton, Colonel—Letter regarding the fall of an Aerolite at Nidigulam, Vizagapatam district [*Proc* 1870, 64]
- Schaffhausen, Prof—Ethnological Queries [*Proc* 1879, 200]
- Schlagintweit, Adolphe—Report on the Progress of the Magnetic Survey, and of the Researches connected with it, from November 1855 to April 1856 [*Jl* xxvi, 97]
- Schlagintweit, Adolphe and Robert—Report upon the Progress of the Magnetic Survey of India and of the Researches connected with it in the Himálaya Mountains, from April to October 1855 [*Jl* xxv, 105]
- Schlagintweit, Hermann—Report on the Progress of the Magnetic Survey and the Researches connected with it in Sikkim, the Khasia Hills and Assam, April to December 1855 [*Jl* xxv, 1]
- Report on the Proceedings of the Magnetic Survey, from January to May 1856 [*Jl* xxv, 554]
- Schlagintweit, Robert de—Report on the Progress of the Magnetic Survey and of the Researches connected with it, from November 1855 to April 1856 [*Jl* xxvi, 54]
- Report on the Proceedings of the Officers engaged in the Magnetic Survey of India [*Jl* xxvi, 208]
- Enumeration of the Hot Springs of India and High Asia [*Jl* xxxiii, 49]
- Comparative hypsometrical and physical Tableau of High Asia, the Andes, and the Alps [*Jl* xxxv, pt ii, 51]
- See SCHLAGINTWEIT, ADOLPHE
- Schlegel, Professor—Mode of expressing numerals in the Sanskrit and Tibetan language [*Jl* iii, 1]

- Schomburgk, Sir Robert H.—A Visit to Xienmu in the principal city of the Laos or Shan States [Jl xxv, 387]
- Schwendler, Louis—On a Practical Method for detecting bad Insulators on Telegraph Lines [Proc 1871 71]
- On the Discharge of long Overland Telegraph Lines [Jl xl pt ii, 78]
- On 'Insulator Detector' [Proc 1872, 92]
- On Differential Galvanometers [Jl xli pt ii 144, xlii pt ii 1]
- Exhibition of a Crow's Nest made of telegraph wire [Proc 1874, 74]
- On the General Theory of Duplex Telegraphy [Jl xliii pt ii 1218, xlii pt ii 47, xlii pt ii 1]
- On *Ailurus fulgens*, or Cat-bear [Proc 1875 98]
- Exhibition of Hooper's Telegraph Core penetrated by Grass [Proc 1875 158]
- Précis of a Report on Electric Light Experiments [Proc 1879, 81]
- On a new Standard of Light [Jl xlviii pt ii 83]
- Zoological Notes [Proc 1880 55]
- On some Experiments instituted to supply all the Lines terminating at the Calcutta Telegraph Office with Current-tapped from the Main Current produced by a Dynamo electric Machine [Proc 1880 171]
- On a Simple Method of using an Insufficient Fraction of the Main Current produced by a Dynamo-electric Machine for Telegraph purposes [Jl xlix pt ii 1]
- On some Experiments instituted to supply all the Lines terminating at the Calcutta Telegraph Office with Currents tapped from the Main Current produced by a Dynamo-electric Machine [Jl xlix pt ii, 167]
- Science in England, State of [Jl i, 198]
- Scott, John—On the Reproductive Functional Relations of several Species and Varieties of *Verbascum* [Jl xxxvi pt ii, 143]
- Souly, Dr J—See SHAW R B
- Seals of the E. I. Company three old silver [Proc 1872, 172]
- Semenof, M—Notes on Central Asia by M Semenov [Jl xxxiv pt ii, 113]
- Sen, Gopenath—Monthly Mean of the principal Meteorological Elements and actual Rainfall recorded at the Calcutta Observatory for twelve years, from 1856 to 1867 [Jl xxxviii pt ii]
- Sen, Gopenath (*contd*)—Tabular Statement shewing the Monthly Rainfall from January 1857 to November 1868 and the Monthly Quinquennial Average for each month during that period as taken at the Surveyor General's Office Calcutta [Jl xxxviii, pt ii]
- Sen, Ram Comul—A Short Account of the Charak Puja Ceremonies, and Description of the Implements used [Jl ii, 609]
- Seringapatam—Climate of, Latitude  $12^{\circ} 45' N$ , Longitude  $76^{\circ} 51' E$  [Jl iii, 138]
- Shakespear, A—Note on the Navigation of the River Nerbudda [Jl xiii 495]
- Shakespeare, John—Observations regarding Buddhiks and Thegs, Extracted from an official report [As Res xiii, 282]
- Sharp, D—Preliminary Diagnoses of new Coleopterous Insects belonging to the families Dytiscidae Staphylinidae and Scarrabidae obtained by the late Dr F Stolliez during the 2nd mission to Yarkand under Sir Douglas Forsyth [Jl xlvii pt ii, 169]
- Shaw, R B—Letter on Yarkand Antiquities [Proc 1875 92]
- On the Ghulchah Languages (Wakhí and Sarikolí) [Jl xlv pt ii, 139]
- On the Shighmí (Gulchah) Dialect [Jl xlv pt ii 97]
- A Grammar of the Language of Eastern Turkistan [Jl xlv, pt i, 242]
- Stray Arms in Tibet [Jl xlvii pt i, 26]
- A Vocabulary of the Language of Eastern Turkistan With two Furka Vocabularies of Birds and Plants by Dr J Scully [Jl xlvii pt i, Extra No 1]
- Shaw, Lieut Thomas—On the Inhabitants of the Hills near Rájamahál [As Res iv, 45]
- Shastri, Bapu Deva—Bhaskáris Knowledge of the Differential Calculus [Jl xxvii 213]
- Sherring, Revd M A, & Horne, C.—Description of the Buddhist Ruins at Bakariya Kund Benares [Jl xxxiv, pt i, 1]
- Some Account of Ancient Remains at Saiduir and Bhitari [Jl xxxiv, pt i 80]

Sherring, Revd M A, & Horne, C  
(contd) — Descriptions of Ancient  
Remains of Buddhist Monasteries  
and Temples, and of other buildings,  
recently discovered in Benares and  
its vicinity [Jl xxv, pt 1, 61]

Sherwill, Major J L — Journal of a  
Trip undertaken to explore the Gla-  
ciers of the Kanchunjingah Group  
in the Sikkim Himálaya, in Novem-  
ber 1861 [Jl xxvi, 457]

Sherwell, Capt S R — The Kurruk-  
pur Hills [Jl. xxi, 195]

Sherwill, Major Walter Stanhope  
— Note on a curious Sandstone For-  
mation at Sasseram, Zillah Shaha-  
bad [Jl xiv, 496]

Note on the Geological Features of  
Zillah Behar [Jl xv, 55]

Geological Notes on Zillah Shahabad,  
or Arrah [Jl xvi, 279]

Note on the Bird-devouring Habits of  
a species of Spider [Jl xix, 474]

A short Notice of an Ancient Colossal  
Figure carved in Granite on the  
Mandár Hill in the district of Bhá-  
gálpur [Jl xv, 272]

A Sketch of the Behar Mica Mines  
[Jl xx, 295]

Notes upon a Tour through the Ráj-  
mahal Hills [Jl xx, 544]

Notes upon a Tour in the Sikkim  
Himálaya Mountains, undertaken  
for the purpose of ascertaining the  
Geological Formation of Kunchin-  
jinga and of the perpetually snow-  
covered Peaks in its vicinity  
[Jl xxii, 540, 611]

Notes upon some Atmospheric Phe-  
nomena observed at Darjeeling in  
the Himálaya Mountains during  
the summer of 1852 [Jl xxiii, 49]

Notes upon some remarkable Water-  
spouts seen in Bengal between the  
years 1852 and 1860 [Jl xxix, 366]

Sherwood, Dr — Of the Murderers  
called Phánsigárs [As Res xii, 250]

Shore, Sir John — Translation of an  
Inscription in the Mega language  
engraved on a Silver Plate found in  
a Cave near Islamabad [As Res ii, 383]

A Discourse delivered at a Meeting of  
the Asiatic Society on the 22nd  
May 1794 [As Res iv, 181]

On some Extraordinary Facts, Cus-  
toms, and Practices of the Hindus  
[As Res iv, 331]

Shortrede, Captn Robert — Scheme  
of a Table for all Time [Jl x, 595]

Table of Proportional Logarithms  
[Jl x, 713]

On Equations of Condition for a Qua-  
drilateral, common or re entrant  
[Jl. xi, 28, 207.]

Compendious Logarithmic Tables  
[Jl xi, 40]

Remarks on the Essay "On the Theory  
of Angular Geometry" [Jl xi, 240]

On an Ancient Magic Square, cut in  
a Temple at Gwahor [Jl xi, 292]

Comparison of the Areas of Plane and  
Spherical Triangles [Jl xi, 776]

Meteors observed at Allahabad on the  
10th of August 1842 [Jl xi, 959]

A Perpetual Moon Table [Jl xii, 103]

A Companion on the Moon Table.  
[Jl xii, 231]

Account of a luminous Meteor seen at  
Charka, lat 24° 06', long 81° 02', on  
the morning of the 11th April 1842  
[Jl xii, 235]

Remarks on some of the Disturbing  
Causes in Barometric Observations  
[Jl xii, 293]

On Barometric Heights [Jl xii, 298]

Showers, Lieut-Col St G D —  
Translation of an Inscription on a  
Gun at Moorsheadabad, with remarks  
[Jl xvi, 589]

On the Meenas, a wild Tribe of Central  
India [Proc 1869, 238]

Sickdhar, Radhanath — An Account  
of the Table used for reducing  
Barometrical Observations to 32°  
Fahrenheit, taken in the Surveyor  
General's Office, Calcutta.  
[Jl xi, 329]

Siddons, Lieut H — Observations of  
the Tides at Chittagong, made in  
conformity with the Circular of the  
Asiatic Society [Jl vi, 949]

Siddons, Lieut G R — Translation  
of one of the Granthas, or sacred  
books of the Dadupanthi Sect  
[Jl vi, 480]

Extracts translated from the Granthas,  
or sacred books of the Dadupanthi  
Sect [Jl vi, 750]

Translation of the "Vichitra Náatak,"  
or 'Beautiful Epitome' — a frag-  
ment of the Sikh Granth entitled  
'the Book of the Tenth Pontiff'  
[Jl xix, 521, xx, 314, 487]

Simpson, W — Exhibition of Gold  
Coins from the Ahm Posh Tope  
near Jelalabad, found by  
[Proc 1879, 77]





- Sprenger, Dr A (*contd*)—Notices of some copies of the Arabic work entitled 'Rasāyil Ikhwān-al-ḥafā' [Jl xvii pt 1, 501]
- Notice of the Ikhwān-al-ḥafā [Jl xvii, pt 11, 189]
- Ballamy's Translation of the History of Tabary, and Ghazālī's History of the Prophets [Jl xvii, pt 11, 437]
- A passage from Ibn Qotaybah's Adab al Kutib' on Arabic Astronomy [Jl xvii, pt 11, 659]
- Notice of a copy of the fourth volume of the original text of Tabary [Jl xix, 108]
- On the Ghassānite Kings [Jl xix, 469]
- Foreign words occurring in the Qorān [Jl xxi, 109]
- Observations on the Physiology of the Arabic Language [Jl xx, 115]
- The initial letters of the Nineteenth Sūrah of the Qorān [Jl xx, 280]
- Chronology of Makkah and the Hijāz before Mohammad, chiefly founded upon Genealogy [Jl xx 349]
- On the Earliest Biography of Mohammad [Jl xx, 395]
- Has Sīdy of Shyrāz written Rékhtah Verses? [Jl xxi, 513]
- Mohammad's Journey to Syria, and Professor Fleischer's Opinion thereon [Jl xxi, 576]
- The first volume of the original text of Tabary [Jl xxii, 195]
- Early Hindústāny Poetry [Jl xxii, 442]
- Catalogues of Oriental Libraries [Jl xxii, 535]
- Manuscripts of the late Sir H Elliot, K C B [Jl xxii 225]
- Notes on Alfred von Kremer's edition of Wakīdy's Campaigns [Jl xxv, 53, 199]
- Notices on the دوراءة of Mohā-saby, being the earliest work on Sūfism as yet discovered, and on an Arabic Translation of a work ascribed to Enoch [Jl xxv, 133]
- The Copernican System of Astronomy among the Arabs [Jl xxv, 189]
- On the Origin and Progress of writing down historical facts among the Musalmans [Jl xxv 303, 375]
- Remarks on Barbier de Meynard's edition of Ibn Khordādbēh and on the Land-tax of the Empire of the Khalāyfs [Jl xxxv, pt 1, 124]
- Sprenger, Dr—On Mahomedan Conquest of Arabia [Proc 1865, 100]
- Spry, Henry Harper—Note on Indian Saline Deposit [Jl 1, 503]
- Note on the Fossil Palms and Shells lately discovered on the Table land of Sagū in Central India [Jl 11, 639]
- Stacy, Major D L—Note on two Coins of the same species as those found at Behat, having Greek Inscriptions [Jl 11, 431]
- Stacy, Lieut-Col L R—Note on the Discovery of a Relic of Grecian Sculpture in Upper India. [Jl v, 567]
- Stars to be observed with the Moon in May 1834, Catalogue of [Jl 11, 139]
- Steel, Lt E H—On an Earthquake in Upper Assam [Proc 1870, 222]
- Letter on Jade Celts found in Assam [Proc 1870, 267]
- Stephenson, J—On the Saline Nature of the Soil of Ghazipoor and Manufacture of Common Salt, as practised by the Natives of the villages of Tutulapoor, Ratonly, Sahory, Chilar and Becompoor [Jl 11, 36]
- On the Efflorescence of Khari Nūn, or Sulphate of Soda, as found native in the soil of Tirhut and Sarun in the province of Behar [Jl 11, 188]
- Excursions to the Ruins and Site of an Ancient City near Baklira 13 cos north of Patna, and six north from Singhea [Jl 1v, 128]
- Note on the Vegetable Impressions in Agates [Jl 1v, 507]
- Specimens of the Soil and Salt from the Sāmar, or Sambhur Lake Salt Works Collected by Lient Arthur Conolly [Jl v, 798]
- Stevenson, J—On the Manufacture of Saltpetre as practised by the Natives of Tirhūt [Jl 11, 23]
- Notice of a Native Sulphate of Alumina from the Aluminous Rocks of Nipal [Jl 11, 321]
- Notice of a Native Sulphate of Iron from the Hills of Behar, and used by Native Dyers' of Patna [Jl 11, 321]
- Notice of Analysis of the Ashes of four Indian Plants [Jl 11, 322]
- Restoration and Translation of some Inscriptions at the Caves of Carli [Jl 11, 495]
- Stevenson, Capt J F—Account of a Visit to the Hot Springs of Pail in the Tavoy District [Jl xxxii, 383]

- Stewart, Dr Duncan —Statistical Record of the duration of diseases in 13,019 fatal cases in Hindoos—Extraordinary mortality among Lying-in Women [*Jl* viii, 316]
- Stewart, Dr J L —Memoranda on the Peshawar Valley, chiefly regarding its Flora [*Jl* xxxii, 219]
- Notes of Observations on the Boksas of the Bijnour District [*Jl* xxxiv, pt ii, 147]
- On Carnivorous Habits of Bears [*Proc* 1867, 115]
- Stewart, Lieut R —Notes on Northern Uchar [*Jl* xxiv 582]
- A slight Notice of the Grammar of the Thadou or new Kookie language [*Jl* xxv, 178]
- Stirling, Andrew —An Account Geographical Statistical and Historical, of Orissa Proper, or Cuttack. [*As Res* xv 163]
- History of the Râjas of Orissa from the reign of Râja Yudhishira Translated from the *Vausâvali* [*Jl* vi 756]
- Stirling, Edward —Price of Grain at Allgurh near Delhi, from the year 1804 to 1832 inclusive. [*Jl* iii 620]
- Notes on the Manners and Habits of the Turkoman Tribes with some Geographical Notices of the Country they occupy [*Jl* x 290]
- Stoliczka, Dr Ferd —Note on *Lagomys Curzonæ*, Hodgson [*Jl* xxxiv pt ii 108]
- On *Nanina pollux* and *Helix propinqua* [*Proc* 1868 263]
- On *Sagartia Schilleriana* and *Membranipora Bengalensis* [*Proc* 1868 263]
- On the Eclipse of 18th August 1868 [*Proc* 1868 275]
- Ornithological Observations in the Sutlej Valley, N W Himalaya [*Jl* xxxvii pt ii 1]
- On the Anatomy of *Sagartia Schilleriana* and *Membranipora Bengalensis* a new Coral and a Bryozoon living in brackish water at Port Canning [*Jl* xxxvii pt ii 28]
- Observation regarding the changes of organs in certain Mollusca [*Proc* 1868 187]
- The Malacology of Lower Bengal and the adjoining provinces [*Jl* xxxviii pt. ii, 86]
- Contribution towards the knowledge of Indian Arachnoidea [*Jl* xxxviii pt ii, 201]
- Observations on *Chamæleo vulgaris* [*Proc* 1870, 1]
- Stoliczka, Dr Ferd (*contd*)—Note on the Kjökkenmoddings of the Andaman Islands [*Proc* 1870, 13]
- Note on a few Species of Andamanese Land-shells [*Proc* 1870, 86]
- Note on Three Species of Batrachia from Moulmein [*Proc* 1870, 272]
- Observations on some Indian and Malayan Amphibia and Reptilia [*Jl* xxxix pt ii, 131, 159]
- A Contribution to Malayan Ornithology [*Jl* xxxix pt ii 277]
- Observation on Indian and Malayan *Telphusa* [*Proc* 1871, 84]
- On the Anatomy of *Cremnoconchus* [*Proc* 1871, 108]
- Notes on Terrestrial Mollusca from the neighbourhood of Moulmein (Tenasserim Provinces), with Descriptions of new Species [*Jl* xli pt. ii, 143, 217]
- Notes on some Indian and Burmese Ophidians [*Jl* xli pt. ii 421]
- Notes on the Reptilian and Amphibian Fauna of Kachh [*Proc* 1872 71]
- Notes on Reptiles, collected by Surgeon F Day in Sind [*Proc* 1872 85]
- Observations on Indian Batrachia [*Proc* 1872 161]
- Notes on some new Species of Reptilia and Amphibia, collected by Dr W Waagen in North Western Panjab [*Proc* 1872, 124]
- Note on a few Burmese Species of Sauria, Ophidia and Batrachia [*Proc* 1872, 143]
- Notes on various new or little-known Indian Lizards [*Jl* xli, pt ii, 86, 117]
- Postscript to the Monograph of Himalayan and Burmese *Claudiæ* [*Jl* xli, pt ii 207]
- Notice of the Mammals and Birds inhabiting Kachh. [*Jl* xli, pt ii, 211]
- On the Land-shells of Penang Island, with Descriptions of the Animals and Anatomical Notes *part first*, Cyclostomacea [*Jl* xli, pt ii 261]
- On the Land-shells of Penang Island, with Descriptions of the Animals and Anatomical Notes, *part second*, *Helicacea* (with Pls i-III.) [*Jl* xli, pt ii, 11]
- Notes on some Species of Malayan Amphibia and Reptilia. [*Jl* xli, pt. ii, 111]
- Notes on the Indian Species of *Thelphonus* [*Jl* xli, pt ii



- Tawney, C H —Remarks on Fire Sticks  
[*Proc* 1881 74  
Exhibition of a rare Coin of Sophytes  
[*Proc* 1881, 104  
Taylor, Dr James —Remarks on the  
Sequel to the Peripplus of the Erythraean Sea, and on the country of the Seres as described by Ammianus Marcellinus [*Jl* xvi 1  
Taylor, Lieut G J —A Brief Account of the System adopted by Divers in the Deccan for the Recovery of Valuables lost in the Tanks and Rivers of that Province [*Jl* iii 45  
Taylor, R. Esq —On Changes of Madras Const [*Proc* 1866, 51  
Taylor, T G —Determination of the Errors of Division of the Mural Circle at the Madras Observatory [*Jl* iii 403  
Collimation Error of Astronomical Instruments [*Jl* iv, 258  
Observations of the Magnetic Dip and Intensity at Madras [*Jl* vi, 374  
Taylor, Major T M —Progress Report of the Boring Experiment in Fort William [*Jl* vi, 234  
Taylor, Revd William —Examination and Analysis of the Mackenzie Manuscripts deposited in the Madras College Library [*Jl* vii 103, 173  
Second Report on the Examination and Restoration of the Mackenzie Manuscripts [*Jl* vii, 371, 469  
Tea Plant, Discovery of the Genuine, in Upper Assam [*Jl* iv, 42  
Temple, Capt R C —The Lokaniti, translated from the Burmese Paraphrase. [*Jl* xlvii pt. i, 239  
Rough Notes on the Distribution of the Afghan Tribes about Kandahar [*Jl* xlviii pt. i, 181  
Notes on the Formation of the Country passed through by the 2nd Column Tal Chotali Field Force during its march from Kala Abdullah Khan in the Khójak Pass to Lugari Bárkhán Spring of 1879 [*Jl* xlviii pt ii, 103  
Letter regarding an Inscription at Sultanpur [*Proc* 1880, 10  
Exhibition of Afghan Helmet. [*Proc* 1880 171  
Remarks on the Afgháns found along the Route of the Tal Chotali Field Force in the spring of 1879 [*Jl* xlix, pt. i, 91, 143  
Some Hindú Folksongs from the Panjáb [*Jl* li, pt. i, 151  
Tennant, Col J F —Reply to Mr Pratt's Letter to the Asiatic Journal on the Indian Arc of Meridian [*Jl* xxviii, 17

- Tennant, Col J F (*contd*) —Results deducible from Eclipse of August 1868 [*Proc* 1868, 273  
Memorandum on the Total Eclipse of December 11, (12), 1871 [*Proc* 171 128  
Suggestions for Visitors to the Total Eclipse on 12th December 1871 [*Proc* 1871 150  
On some Experiments made at H M's Mint in Calcutta on Coining Silver into Rupees [*Jl* xlviii, pt ii, 56  
Letter regarding Newcomb's Astronomical Papers [*Proc* 1880, 41  
Account of the Verification of some Standard Weights, with considerations on Standard Weights in general [*Jl* xlix pt ii 41  
Table of Predictions of the Eclipse of the Sun, May 16th, 17th, 1882 [*Proc* 1881 88  
Photographs of Terra del Fuego Savages, forwarded by [*Proc* 1881, 152  
Theobald, W —Indian Oology Notes on the Nidification of some of the commoner Birds of the Salt Range, with a few additional, from Kashmir [*Jl* xxiii 589  
Notes on the Geology of the Panjáb Salt Range [*Jl* xxiii, 651  
Indian Oology [*Jl* xxiv, 520  
Notes on the Distribution of some of the Land and Fresh-water Shells of India Part I [*Jl* xxvi 245, xxvii, 313  
Descriptions of some new Burmese and Indian Helicidae, with Remarks on some previously described species [*Jl* xxviii 305  
Notes of a Trip from Simla to the Spiti Valley and Chomoriri (Tshomoriri) Lake during the months of July, August and September 1861 [*Jl* xxxi, 480  
Notes on the Distribution of Indian terrestrial *Gasteropoda*, considered with reference to its bearing on the origin of species [*Jl* xxxii, 354  
Notes on the variation of some Indian and Burmese Helicidae, with an attempt at their re arrangement, together with descriptions of new Burmese *Gasteropoda* [*Jl* xxxiii, 238  
Theobald, W —On Stone Implements [*Proc* 1865 126  
Observations on certain Structures by Mr H F Blanford on W Theobald's Paper on the Distribution of Indian *Gasteropoda* [*Jl* xxxiv, pt ii, 60

- Theobald, W (*contd*)—Notes on a Collection of Land and Fresh-water Shells from the Shan States Collected by F Fedden, Esq, 1864-65 [Jl xxxiv, pt ii, 273]
- On *Nesolia Indica* [Proc 1866, 239]
- Catalogue of Reptiles in the Museum of the Asiatic Society of Bengal [Jl xxxvii, pt ii, extra No]
- Descriptions of some new Land Shells from the Shan States and Pegu [Jl xxxix, pt ii, 395]
- Notes on Stone Implements of Burma. [Proc, 1869, 181]
- Note on some Agate Beads from North-Western India [Proc 1869, 253]
- Remarks on a Stone Implement from Burmah [Proc 1870, 220]
- Note regarding certain Type Specimens of Batrachia in the Asiatic Society's Museum [Proc 1873, 110]
- Descriptions of new Species of *Unio-inda* [Jl xlii, pt ii, 207]
- Observations on some Indian and Burmese Species of *Trionyx* [Proc 1874, 75]
- Letter forwarding two Perforated Stone Implements found at Kharakpur, in the Monghyr District [Proc 1875, 102]
- Observations on some Indian and Burmese Species of *Trionyx*, with a Rectification of their Synonymy and a Description of two new Species [Proc 1875, 170]
- Descriptions of some new Land and Fresh-water Shells from India and Burmah [Jl xlv, pt ii, 183]
- Remarks on Mr Campbell's Paper on Himalayan Glaciation in the Journal A S B, No 1, Part II, 1877 [Proc 1877, 137]
- Notes on the Land and Fresh-water Shells of Kashmir, more particularly of the Jhilmul valley below Srinagar and the Hills north of Jammu [Jl xlvii, pt ii, 141]
- List of *Mollusca* from the Hills between Man and Tadiani [Jl i, pt ii, 44]
- Theobald, W, and Stoliczka, Dr F—Notes on Burmese and Arakanese Land Shells, with Descriptions of a new Species [Jl xli, pt ii, 129]
- Thibaut, Dr G—On the *S'ulvas'ūtras* [Jl xlv, pt i, 227]
- Contributions to the Explanation of the Jyotisha-Vedanga [Jl xlv, pt i, 411]
- On the *Sūryaprajnapiti* [Jl. xlix, pt i, 107, 181.]
- Thomas, Edward—On Sassanian Coins [Jl xx, 125]
- An Account of eight Kūfic Silver Coins [Jl xx, 125]
- Note on Col Stacey's Ghazni Coins [Jl xxi, 115]
- Note on the present state of the Excavations at Sārnāth [Jl xxiii, 469]
- On the Epoch of the Gupta Dynasty [Jl xxiv, 171]
- On the Coins of the Gupta Dynasty [Jl xxiv, 483]
- Ancient Indian Numerals [Jl xxiv, 551]
- Catalogue of the Coins in the Cabinet of the late Col Stacy, with the estimated prices attached [Jl xxvii, 251.]
- On Ancient Indian Weights [Jl xxxiii, 251, xxxiv, pt i, 14, 151]
- On Double Currency [Proc 1865, 205]
- On Arian Alphabets [Proc 1866, 138]
- On Arian Alphabets [Proc 1867, 73]
- The Initial Coinage of Bengal [Jl xxxvi, pt i, 1, xli, pt i, 315]
- On a Coin of Plato [Proc, 1872, 171]
- Readings of rare Bengal Coins [Proc 1872, 199]
- On a Coin of Kunanda [Proc 1875, 163]
- Note on Jainism [Proc 1879, 1]
- The Revenues of the Mughal Empire [Jl i, pt i, 115]
- Thomason, J—Report on the Settlement of the Ceded District of Arimburgh, commonly called Chaklakh-Azimburgh [Jl viii, 77]
- Thompson, Capt W B—Note on the Baigās of Bālāghāt [Proc 1872, 172]
- Thomson, Capt J—Rules for calculating the Lengths of the Drop-bars of Suspension Bridges, the Length and Deflection of the Chain, Rise of the Roadway, &c [Jl iv, 222]
- Table showing the Weight or Pressure which a Cylindrical Wrought-iron Bolt will sustain when supported at the ends and loaded in the middle of its length [Jl iv, 222]
- A Table of the Scantlings of Teak and Teal of Sand Wood to be used in Terrace Roof not exceeding 12 inches in thickness, the depth not to exceed one fourth of an inch for each foot of breadth [Jl v, 227]

Thomson, Thos —Notes on the Herbarium of the Calcutta Botanic Garden, with Especial Reference to the completion of the Flora Indica

[*Jl* xv, 405]

Thuillier, Genl H E L —A Tabular view of the fall of Rain and other remarkable Meteorological Phenomena in Calcutta from 1829 to 1847

[*Jl* xvii, pt 1, 349]

Meteorological Summary for 1847

[*Jl* xvii, pt 1, 550]

Memorandum on the Survey of Kashmir in progress under Capt T G Montgomerie, and the Topographical Map of the valley and surrounding mountains with Chart of the Triangulation of the same executed in the Field office, and under the superintendence of Lieut.-Colonel A Scott Waugh Surveyor-General of India, Dehra-Dun, May 1859

[*Jl* xxix, 20]

Remarks on the connection of the Brahmaputra and Sanpú.

[*Proc* 1878, 26]

Thurburn, Capt —Report on the Turin Mail Hill addressed to R N C Hamilton, Esquire, Resident at Indore

[*Jl* xx 502]

Tibetan Frontier, Correspondence of the Commissioners deputed to the

[*Jl* xvii, pt 1 89]

Tickell, Lieut -Colonel S R —List of Birds collected in the Jungles of Borabhm and Dholbhm

[*Jl* ii, 569]

Memoir on the Hodesum (improperly called Kolehan)

[*Jl* ix, 694, 783]

Grammatical construction of the Ho Language

[*Jl* ix, 997]

Vocabulary of the Ho Language

[*Jl* ix 1063]

Supplementary Note to the Memoir on the Hodesum.

[*J* x, 30]

Notes on the Bendkar, a People of Keonjur

[*Jl* xi, 205]

Manis Crassicaudata, (Auct.) M Pentadactyla (Ibid) Short-tailed or thick-tailed Manis In Hindustan, generally called "Bujjerkeet"—Orissa "Bujjer Kepta" and "Soo ruj Mookhee"—By the Lurka Koles, "Armoo"

[*Jl* xi 221]

Notes on a curious Species of Tiger or Jaguar, killed near the Snowy Range, north of Darjeeling

[*Jl* xii 814]

On the Oology of India a Description of the Eggs, also Nests, of several Birds of the plains of India, collected chiefly during 1845, '46

[*Jl* xvii, pt 1, 297.]

Tickell, Lieut -Col S R (*contd*)—Notes on the Heumá or "Shendoos," a Tribe inhabiting the Hills north of Arakan

[*Jl* xxi, 207]

Description of a new Species of Hornbill by Capt S R Tickell, Principal Assistant Commissioner, Tenasserim Provinces

[*Jl* xxiv, 285]

Itinerary, with Memoranda, chiefly Topographical and Zoological, through the southerly portions of the district of Amherst, province of Tenasserim

[*Jl* xxviii, 421]

Order Chelonia

[*Jl* xxxi, 367]

Memoranda relative to three Andamanese in the charge of Major Tickell, when Deputy Commissioner of Amherst, Tenasserim, in 1861

[*Jl* xxxiii, 162]

Note on the Gibbon (*Hylobates lar*), of Tenasserim

[*Jl* xxxiii, 196]

Description of a supposed new genus of the Gadidæ, Arakan

[*Jl* xxxvii, pt 11 32]

Grammar of the Ho Language (Kolarian Aborigines)

[*Jl* xxxv, pt 11, *Extra No* 268]

Tide, Register of the Rise and Fall of the, at Prince of Wales Island and Singapore

[*Jl* xi, 149, 263 359]

Tides, Results of the Observations made on the at Madras, from the 31st May to the 10th October 1821, by means of a Tide-gauge fixed near the north-east angle of the Fort

[*Jl* iv, 325]

Tides, Succinct Review of the Observations of the, in the Indian Archipelago made during the year 1839, by order of his Excellency the Governor General of His Netherlandish Majesty's possessions, 20th October 1838, No 3

[*Jl* x, 302.]

Todd, Major —Report of a Journey from Herat to Simla, *via* Candahar, Cabool and the Panjaub undertaken in the year 1838, by order of His Excellency John McNeill, Esquire, H B M Envoy Extraordinary and Minister Plenipotentiary at the Court of Persia

[*Jl* xiii, 339]

Tolbort, T W H —The District of Lúdíana

[*Jl* xxxviii pt 1 83]

The District of Dehra Ismail Khan Trans Indus

[*Jl* xl pt 1, 1]

Authorities for the History of the Portuguese in India. [*Jl* xli, pt. 1, 193]

On the Portuguese Settlements in India [*Proc* 1874, 128]

- Torrens, Henry—Remarks on M  
Schlegel's Objections to the restored  
editions of the Alif Lillah, or Ara-  
bian Nights' Entertainments [Jl vi, 161]
- Note on Bameean Coins [Jl ix, 70]
- Note on Discoveries of Gems from  
Kandahar [Jl ix, 100]
- Note on an Inscription from Oodeypore  
near Sagur [Jl ix, 545]
- On the Gem and Coins, figured as  
Nos 7 and 8 in the preceding Plate,  
and on a Gem belonging to the late  
Edward Conolly [Jl xi, 137]
- On a Cylinder and certain Gems, col-  
lected in the neighbourhood of He-  
rat by Major Pottanger [Jl xi 316]
- On Native Impressions regarding the  
Natural History of certain Animals [Jl xviii, 788]
- Some Conjectures on the Progress of  
the Bráhmínical Conquerors of In-  
dia [Jl xix, 1]
- Note with a Specimen of Iron from  
the Dhunakar hills, Birbhūm [Jl xix, 77]
- Translation of some uncertain Greek  
legends on Coins of the Indo Scy-  
thian Princes of Cabul [Jl xx, 137]
- Toung-hoo, Dy Com of—On the  
Gyeikki country [Proc 1866 80]
- Towers, Captain John.—Observations  
on the Alphabetical System of the  
Language of Awá and Ráe'hain. [As Res v, 143]
- Trail, Henry—A Meteorological Diary  
kept at Calcutta [As Res ii, 419]
- Trall, George William—Statistical  
Sketch of Kamaon [As Res xvi, 137]
- Statistical Report on the Bhotia Me-  
hals of Kamaon [As Res xvii, 1]
- Trant, Lieut T A—Notice of the  
Khyñ Tribe inhabiting the Yúma  
Mountains, between Ava and Ara-  
can [As Res xvi 261]
- Report on a Route from Pakung Yeh  
in Ava, to Aeng in Aracan [Jl xi, 1136]
- Tregear, Vincent—Notice of an An-  
cient Mahal or Palace near Jaunpur,  
in which some Hindu Coins were  
recently dug up [Jl iii 617]
- Note on the River Goomtee, with a  
Section of its Bed [Jl viii 712]
- Mode of taking Facsimiles of Coins [Jl x, 158]
- A few Instructions for Insect Collec-  
tors [Jl xi, 473]
- Tremenheere, Capt'n G B—Letters  
forwarding a Paper on the Forma-  
tion of the Museum of Economic  
Geology of India [Jl ix 973]
- Report on the Tin of the Province of  
Mergui [Jl x 845, xi, 24 289]
- Report on the Manganese of the Mer-  
gui Province [Jl x 852]
- Second Report on the Tin of Mergui [Jl xi, 839]
- Report of a Visit to the Pakchan Ri-  
ver, and of some Tin Localities in  
the southern portion of the Tenas-  
serim Provinces [Jl xii, 523]
- Report, &c, with information con-  
cerning the price of Tin Ore of  
Mergui, in reference to Extract  
from a Despatch from the Honor-  
able Court of Directors dated 25th  
October 1843, No 20 [Jl xiv 329]
- On Thamman Tank [Proc 1866, 109]
- Tremlett, J D—Notes on Old Delhi [Jl xxxix, pt 1, 70]
- Trotter, Robert—Notes regarding the  
Meteorology and Climate of the  
Cape of Good Hope [Jl xi, 211]
- Troyer, Capt'n A—Remarks upon the  
Second Inscription of the Allaha-  
bad Pillar [Jl iii, 118]
- Turner, Lieut Samuel—An Ac-  
count of a Journey to Tibet [As Res i, 207]
- Copy of an Account given by Mr  
Turner of his Interview with Tee-  
shoo Lama at the Monastery of Ter-  
paling enclosed in Mr Turner's Let-  
ter to the Honorable the Governor  
General [As Res i, 199]
- Description of the Yák of Tartary,  
called Soora-Goy or the Bushy-  
tailed Bull of Tibet [As Res iv, 351]
- Turnour, Hon'ble George—Exami-  
nation of some points of Buddhist  
Chronology [Jl v, 521]
- An Examination of the Pali Buddhist  
tical Annals [Jl vi, 501, 713, vii, 686, 789,  
919 991]
- Account of the Tooth Relic of Ceylon,  
supposed to be alluded to in the  
opening passage of the Feroz Iat  
Inscription [Jl vi, 856]
- Further Notes on the Inscriptions on  
the columns at Delhi Allahabad  
Bethiah, &c [Jl vi 1019]
- Turpentine, On the Native Manufac-  
ture of [Jl ii 218]
- Tusser and other Sill s. Corre-spondence  
regarding Samples of [Proc 1875, 12~]

- Tween, A — On Analysis of Peat  
[*Proc* 1865, 86]
- Twemlow, Brigadier G — On Modes  
of obtaining Important Results by  
Simple Means [*Jl* 1, 68 105  
On Artificial Fuel [*Jl* xii, 228]
- Tytler, J — Essay on the Binomial  
Theorem as known to the Arabs  
[*As Res* xiii 456  
An Essay on the Extraction of the  
Roots of Integers as practised by  
the Arabs [*As Res* xvii, 51]
- Tytler, Lieut-Col R C — Account of  
further Intercourse with the Natives  
of the Andaman Islands  
[*Jl* xxxiii 31  
Description of a new Species of Para-  
dorus from the Andaman Islands  
[*Jl* xxxiii, 188  
Observations on keeping Salt-water  
Fish alive for a considerable time  
[*Jl* xxxiii, 534  
Observations on a few Species of Geo-  
los alive in the possession of the  
Author [*Jl* xxxiii, 535]
- Tytler, Lieut-Col R C — On sup-  
posed new Species of Rats  
[*Proc* 1865, 76  
Description of new Species of *Spizetus*  
[*Proc* 1865 112  
*Vulter Monachus* [*Proc* 1866, 74  
On *Drymoipus Verreauxi*  
[*Proc* 1868 200]
- Ujfaboy, Ch — See WATERHOUSE,  
MAJOR J
- Uma, The Birth of — a Legend of Hima-  
laya by Calidasa. [*Jl* 11, 329]
- Ure, Dr A — Analysis of Iron Ores  
from Tavoy and Mergui, and of  
Limestone from Mergui  
[*Jl* xii, 236]
- Ushruff Khan — See ABBOTT, CAPT J
- Vansittart, Henry — On the Descent  
of the Afghans from the Jews  
[*As Res* 11 67  
A Description of Assam by Mohammed  
Cazim [*As Res* 11, 171]
- Venuikoff, W — Statistical Data on the  
Area of Asiatic Russia, translated  
from No III 1865, of the Notes of  
the Imperial Russian Geographical  
Society, by Mr R Michell  
[*Jl* xxxix, pt 11, 41]
- Verchere, Dr Albert M — Notes to  
accompany a Geological Map and  
Section of the Lowa Ghur or Sheen  
Ghur Range in the district of Bun-  
noo, Punjab with Analyses of the  
Lignites [*Jl* xxxiv, pt 11, 42]
- Verchere, Dr Albert M (*contd*) —  
Kashmir the Western Himálaya and  
the Afghan Mountains a Geological  
Paper, with a Note on the Fossils by  
M Edouard de Verneuil  
[*Jl* xxxv, pt 11, 89, 159, xxxvi,  
pt 11, 9, 83, 201  
Kashmir the Western Himalaya and  
the Afghan Mountains a Geological  
Paper with a Note on the Fossils by  
M Edouard de Verneuil  
[*Jl* xxxv pt 11, 159  
Kashmir the Western Himálayas and  
the Afghan Mountains a Geological  
Paper with a Note on the Fossils by  
M Edouard de Verneuil  
[*Jl* xxxvi pt 11, 9  
Kashmir, the Western Himálaya and  
the Afghan Mountains, a Geological  
Paper with a Note on the Fossils  
by M Edouard de Verneuil  
[*Jl* xxxvi, pt 11, 83  
Kashmir the Western Himalaya and  
the Afghan Mountains a Geological  
Paper, with a Note on the Fossils  
by M Edouard de Verneuil  
[*Jl* xxxvi, pt 11, 201]
- Vermilion — On Chinese [*Jl* 1, 151]
- Vernueil, Edouard de — See VER-  
CHERE, DR ALBERT M
- Vicary, Capt N — List of Specimens  
from Bilwar [*Jl* 1v, 571  
Note on the Scapes of *Xanthorrhæa*  
and Fossil Stems of *Lapidodendra*  
[*Jl* viii, 685  
Notes on the Botany of Sinde  
[*Jl* xvi, 1162]
- Vigne, G J — Some Account of the  
valley of Kashmir, Ghazni and Ka-  
lul [*Jl* vi, 766]
- Voysey, Dr H W — Description of  
the Native Manufacture of Steel in  
Southern India [*Jl* 1 245  
On the Diamond Mines of Southern  
India [*As Res* xv, 120  
On the Building Stones and Mosaic of  
Akberabad or Agra  
[*As Res* xv, 429  
On the Geological and Mineralogical  
Structure of the Hills of Sitábal,  
Nágpur, and its immediate vicinity  
[*As Res* xviii, pt. 1, 123  
On some Petrified Shells found in the  
Gawilgerh Range of Hills in April  
1823 [*As Res* xviii pt 1, 187  
Report on the Geology of Hyderabad  
[*Jl* 11 298  
Second Report on the Geology of Hy-  
derabad [*Jl* 11 392  
Vocabulary of Goand and Cole Words  
[*Jl* xiii, 19]



- Voysey, Dr H W (*contd*)—Extracts from Dr Voysey's Private Journal when attached to the Trigonometrical Survey in Southern and Central India [*Jl* xiii, 853, xix, 190, 269]
- Wade, Capt C M—Notes taken in 1829, relative to the Territory and Government of Iskardoh, from information given by Charágh Ali, an agent deputed to him in that year by Ahmad Sháh, the Gelp or ruler of that country. [*Jl* iv 589]
- Note on the Hot Spring of Lohand Khad [*Jl* vi, 153]
- See MACKESON, LIEUT F.
- Walden, Arthur, Viscount—See BLITH, E
- Waldie, D—On Burmese Paraffine [*Proc* 1866, 72.]
- On Iron Pseudomorphs [*Proc* 1866, 136]
- On Scientific Technology [*Proc* 1866, 175]
- Experimental Investigations connected with the supply of water from the Hooghly to Calcutta [*Jl* xxxv, pt ii, 203]
- On Calcutta Water-supply [*Proc* 1867, 166]
- Experimental Investigations connected with the supply of water from the Hooghly to Calcutta, Part II, being supplementary observations. [*Jl* xxxvi, pt ii, 1]
- Experimental Investigations connected with the supply of to water Calcutta, Part III [*Jl* xxxvi pt ii, 115]
- Analysis of the Khettree Meteorite [*Jl* xxxviii, pt ii, 252]
- Analysis of a new Mineral from Burmah [*Proc* 1870, 279]
- Remarks on the Filtration of Hughli water during the rainy season [*Proc* 1873, 162]
- On the Muddy Water of the Hughli during the rainy season, with reference to its Purification and to the Calcutta Water-supply [*Jl* xli pt ii, 210]
- Walker, Dr A M—Report on Productions and Manufactures in the district of Hunumkoondah in the dominions of H H the Nizam of Hyderabad [*Jl* x, 386]
- On the Geology, &c &c, of Hunumkoondah (H H the Nizam's territory) [*Jl* x, 471]
- On the Natural Products about the Pundeelah River, H H the Nizam's territory. [*Jl* x 509]
- Notes and Observations in continuation [*Jl* x, 725]
- Walker, H—Notice of the Kiang [*Jl* xvii, pt ii, 1.]
- Walker, Major-Gen J T—The Trigonometrical Survey of India [*Jl* xxxi, 32]
- Progress of the Trigonometrical Survey, being Extracts from a Report to the Secy to the Govt of India Military Department [*Jl* xxxii 111]
- Extract from Report of the Operations of the Great Trigonometrical Survey of India during the year 1862-63 [*Jl* xxxiii 331]
- Russian Geographical Operations in Asia [*Jl* xxxv, pt ii, 77]
- On Port Blair [*Proc* 1868, 91.]
- Recent Trans-Frontier Explorations [*Jl* xliii pt i 73]
- Exploration of the Great Sampo River of Thibet, during 1877, in connection with the Operations of the Survey of India [*Proc* 1879 201]
- The Evidence afforded by the Indian Pendulum Observations on the Constitution of the Earth's Crust and on Geodesy [*Proc* 1879, 246]
- On the Eastern Frontier of Thibet [*Proc* 1880, 200]
- Remarks on the Singpho and Kampti Country [*Proc* 1882 7]
- The Spirit Levelling Operations executed in connection with the Tidal Observations of the Indian Survey Department [*Proc* 1882, 78]
- An Account of the return of explorers from Thibet [*Proc* 1882 159]
- On the Earthquake of the 11st December 1881 [*Proc* 1883, 60]
- Walker, W—Mémor on the Coal found at Kotah, &c with a Note on the Anthracite of Duntimnapilly (H H the Nizam's dominions) [*Jl* x, 311]
- Wallich, Dr N—Descriptions of two new Species of *Sarcobolus*, and some other Indian Plants [*As Res* xii 555]
- Descriptions of some rare Indian Plants [*As Res* xiii, 369.]
- An Account of a new Species of a *Camellia* growing wild at Nepal [*As Res* xiii, 423]
- List of Indian Woods collected by " [*Jl* ii 167.]
- Observations on the Burmese and Munipoor Varnish Tree [*Jl* viii 70]
- Walters, Henry—Journal of a Journey to Pandua Hills near Sylhet in Bengal [*As Res* xvii, 193]
- Census of the City of Dacca [*As Res* xvii, 515]

- Ward, G E—On Buddhist Remains  
[*Proc* 1866, 97]
- Ward, T—Short Sketch of the Geology of Pulo Pinang and the neighbouring Islands with a Map and Sections [*1st Rec* xviii pt ii, 149]
- Ward, Major—Some Account of the Hill Tribes of the Piney Hills in the Madura District Communicated by Capt T J Taylor [*Jl* iv, 664]
- Warlow, W—Systematically arranged Catalogue of the Mammalia and Birds belonging to the Museum of the Asiatic Society, Calcutta [*Jl* ii, 96]
- Warren, Capt John—An Account of Experiments made in the Mysore country, in the year 1804 to investigate the effects of Terrestrial Refraction [*1st Rec* ix, 1]
- An Account of Astronomical Observations taken at the Honorable Company's Observatory, near Fort St George in the East Indies in the years 1806 and 1807 To which are added some Remarks on the Declination of certain Stars and of the Sun, when near the zenith of that place [*1st Rec* x, 513]
- An Account of the Petrifications near the village of Treevika in the Carnatic. [*1st Rec* xi 1]
- An Account of Experiments made at the Observatory, near Fort St George, for determining the length of the simple pendulum beating seconds of time at that place, to which are added Comparisons of the said Experiments with others made in different parts of the globe, and some Remarks on the ellipticity of the earth, as deduced from these operations [*1st Rec* xi 293]
- An Account of Observations taken at the Observatory near Fort St George in the East Indies for determining the obliquities of the Ecliptic in the months of December 1809, June and December, 1810 [*1st Rec* xii, 192]
- Observations on the Golden Ore found in the Eastern Provinces of Mysore, in the year 1802 [*Jl* iii, 463]
- Warth, Dr H—Preliminary Report on Comparative Observations of air-temperature and humidity at different elevations above the ground-surface. [*Proc* 1883, 80]
- Waterhouse, Major J—On a new Photocollographic Printing Process [*Proc* 1871, 299]

- Waterhouse, Major J (*contd*)—On the Application of Electro deposition to the Correction of Engraved Copperplates [*Proc* 1874, 2]
- Exhibition of Photographs showing the extreme Red Rays of the Solar Spectrum [*Proc* 1875, 198]
- Photography in connection with the Observation of the Transit of Venus at Roorkee, December 9th (Civil), 1874 [*Jl* xlv, pt ii 64]
- On the Influence of Eosin on the Photographic Action of the Solar Spectrum upon the Bromide and Bromiodide of Silver [*Proc* 1876 12]
- Translations of Extracts of letters from M Ch Ujvaly and the Abbé Desgodins, descriptive of recent Geographical researches in Turkestan and Tibet published in the October number of the Bulletin de la Société de Géographie [*Proc* 1878, 21]
- Exhibition of a Photograph by M Janssen of a part of the Sun's disc [*Proc* 1878, 119]
- Exhibition of a photograph of a sculptured group in the Garalmandal Temple at Pathari Central India [*Proc* 1878, 122]
- An Account of the Tidal Observations in the Gulf of Cutch conducted by the Great Trigonometrical Survey under the superintendence of Col J T Walker C.B., R.E., during the years 1873-74-75 Compiled from the Great Trigonometrical Survey Report [*Jl* xlvii, pt ii, 26]
- The Application of Photography to the Reproduction of Maps and Plans by Photo mechanical and other processes [*Jl* xlvii, pt. ii, 53]
- Remarks on Coins, &c, from Ahin Posh Tope [*Proc* 1879, 79]
- Note on the Fourth Edition of General Walker's Map of Turkestan in four Sheets [*Proc* 1879, 186]
- Notes on the Survey Operations in Afghanistan in connection with the Campaign of 1878-79 Compiled from Letters and Diaries of the Survey Officers [*Jl* xlviii, pt ii, 146]
- Water-mill—Description of the Pan-chaki or Native [*Jl* ii, 359]
- Wathen, W H—Memoir on the U'sbek state of Kokan, properly called Khokend (the Ancient Ferghana), in Central Asia [*Jl* iii 369]

- Wathen, W H (*contd*)—Note on a Pilgrimage undertaken by an U's-bek and his two sons from Khokend, or Kokan, in Tartary, through Russia, &c. to Mecca [*Jl* iii, 379  
Account of the Inscriptions upon two sets of Copperplates, found in the Western part of Gujerat [*Jl* iv, 477  
Memoir on Chinese Tartary and Khoten [*Jl* iv, 653  
A Grammar of the Sindhi Language [*Jl* vi, 347
- Watson, Lieut-Col T C—Chirra Punji, and a detail of some of the favourable circumstances which render it an advantageous site for the erection of an Iron and Steel Manufactory on an extensive scale [*Jl* iii, 25
- Waugh, Lieut-Col A. Scott—*See* THUILLIER, H L
- Webb, Capt W S—Memoir relative to a Survey of Kumaon with some Account of the principles upon which it has been conducted [*As Res* xiii, 293
- Weights of England and India, On the Standard [*Jl* i, 442
- Weller, Lieut J A—Extract from the Journal kept on a Trip to the Bulcha and Oonta Dhoora Passes, with an Eye-sketch [*Jl* xii, 78
- Wellsted Lieut J R—Account of some Inscriptions in the Abyssinian character found at Hassan Ghorab, near Aden, on the Arabian Coast [*Jl* iii, 554  
Report on the Island of Socotra [*Jl* iv, 198
- Westland, J—Remarks on an Afghan Helmet [*Proc* 1880, 171  
Exhibition of Old Maps of Calcutta and Bengal [*Proc* 1881, 89
- Westmacott, E V—Letter on the Identification of Ancient Towns in Bengal [*Proc* 1874, 57.  
Note on the Site of Fort Ekdalah District Dinajpur [*Jl* xliii, pt 1, 244  
A Copperplate containing a grant of land by Lakshman Sen of Bengal, found near Torpon dighi in the District of Dinajpur, 1874 [*Jl* xlii, pt i, 1  
On Traces of Buddhism in Dinajpur and Bagura (Bogra) [*Jl* xlii, pt 1, 187  
Letter on a Kutila Inscription from Monghyr [*Proc* 1883, 45  
*See* BLOCHMANN, H.
- Westmacott, Capt G E—Some Account of a Sect of Hindu Schismatics in Western India, calling themselves Ramsandhi, or Friends of God [*Jl* iv, 67  
Description of Ancient Temples and Ruins at Chârdwâr in Assam [*Jl* iv, 185  
A short Account of Khyrpoor and the Fortress of Bukur, in North Sind [*Jl* ix, 1090  
A short Account of Khyrpoor and the Fortress of Bukur, in South Sind [*Jl* ix, 1187  
Roree in Khyrpoor, its Population and Manufactures [*Jl* x, 393, 479
- Whalley, P—Translations from the Târikh i Firâz Shâhî The reign of Mu'izzuddin [*Jl* xi, pt 1, 185  
Translations from the Diwân of Zib-un-nisâ Begum poetically styled 'Makhfi' daughter of the Emperor Aurangzib [*Jl* xiv, pt 1, 308  
Metrical Translations from the Quatrains of 'Umar Khayyâm [*Jl* xlii, pt 1, 153
- White, Lieut Charles—On the Dhanésa, or Indian Buceros [*As Res* iv, 119
- Whitty, I J—Note on a Case of Death from Lightning in a Mine [*Proc* 1877, 102
- Wilcox, Lieut R—Memoir of a Survey of Assam and the neighbouring Countries, executed in 1825 6 7 8 [*As Res* xvi, 314
- Wilford, Colonel Francis—Remarks on the City of Tagara [*As Res* i, 769  
On Egypt and other Countries adjacent to the Gâh River or Nile of Ethiopia, from the Ancient Books of the Hindus [*As Res* iii, 295  
A Dissertation on Semiramis, the Origin of Mecca, &c, from the Hindu Sacred Books [*As Res* iv, 763  
Account of some Ancient Inscriptions [*As Res* v, 135  
On the Chronology of the Hindus [*As Res* v, 241  
Remarks on the Names of the Cabiriana Deities, and on some words used in the Mysteries of Eleusis [*As Res* v, 297.  
On Mount Cacerena [*As Res* vi, 47  
An Essay on the Sacred Islands in the West, with other Essays connected with that work [*As Res* viii, 245, ix, 32, x, 27, xi, 11

- Wilford, Colonel Francis (*contd*)—  
On the Ancient Geography of India  
[*1<sup>st</sup> Res* xiv 373  
An Essay on the Comparative Geo-  
graphy of Ancient India  
[*II* xx 227-170
- Willins, Charles—A Royal Grant of  
Land engraved on a Copperplate  
bearing date twenty three years  
before Christ and discovered  
among the Ruins of Mongucur  
[*1<sup>st</sup> Res* i 12  
An Inscription on a Pillar near Buddal  
[*1<sup>st</sup> Res* i 131  
Translation of a Sanscrit Inscription,  
copied from a Stone at Booddha-  
Gaya by Mr Wilmot 1785  
[*1<sup>st</sup> Res* i 281  
On the Siaks and their College  
[*1<sup>st</sup> Res* i 288  
Two Inscriptions from the Andra  
Mountains [*1<sup>st</sup> Res* ii 167
- Wilkinson Lancelot—On the use of  
the Sakkiantis in the Work of  
Naval Education [*II* ii 501  
Discovery of the Ratha Granita a  
Translation of the Elements of Eu-  
clid into Sanscrit by Samrat Jagann-  
atha under the orders of Raja  
Siva Jaija Simha of Jaipur  
[*II* vi, 938  
Translation of an Inscription on a  
Tamba Patra found in the village  
of Piprahwar in the Shujapur Per-  
gana and presented to the Political  
Agent, Bhopal, by the Jagirdar  
[*II* vii 736
- Williams, Dr C—Extract from  
Journal of a Trip to Bharno  
[*II* xxxiii, 189  
Memorandum on the Question of  
British Trade with Western China  
via Burmah [*II* xxxiii, 407
- Williams, John—On the Cure of  
persons bitten by Snakes  
[*1<sup>st</sup> Res* ii, 323
- Williamson, Lieut W J—A Voca-  
bulary of the Garo and Konch  
Dialects [*II* xxxviii, pt. i, 14
- Willson, W G—Observations on Mr  
Blanford's Paper on the Normal  
Rainfall of Bengal [*Proc* 1870, 225  
An Account of the Occurrence of a  
Whirlwind in the neighbourhood of  
Calcutta [*Proc* 1872, 96
- Wilson, Horace Hayman—An Essay  
on the Hindu History of Cashmir  
[*1<sup>st</sup> Res* xv, 1  
A Sketch of the Religious Sects of the  
Hindus [*1<sup>st</sup> Res* xvi 1, xvii, 169  
Sanskrit Inscriptions at Abu  
[*1<sup>st</sup> Res*, xvi 284.

- Wilson, Horace Hayman (*contd*)—  
Notice of three Tracts received from  
Nepal [*1<sup>st</sup> Res* xvi, 450  
Description of Select Coins, from Ori-  
ginals or Drawings in the possession  
of the Asiatic Society  
[*1<sup>st</sup> Res* xvii, 559  
Remarks on the portion of the Diony-  
sian of Nonnus relating to the  
Indians [*1<sup>st</sup> Res* xvii, 607  
Abstract of the Contents of the Dul-  
va, or first portion of the Kah-gyur  
[*II* i, 1  
Analysis of the Purāṇas  
[*II* i 81 217  
Analysis of the Kah-gyur [*II* i, 375  
Analysis of the Vishnu Purāṇa  
[*II* i, 431  
Analysis of the Vāyu Purāṇa  
[*II* i, 535
- Wilson Revd John—Address read  
before the Bombay Branch of the  
Royal Asiatic Society on the 27th  
January 1836 [*II* v 304
- Wilson, Revd Dr—Address on the  
Prospects of Indian Research  
[*Proc* 1869 109
- Wilson, R H—On Earthquakes of  
Chittagong [*Proc* 1866 40
- Wilson, W L—On Chopped Imple-  
ments of Saugor District  
[*Proc* 1867 142
- Wise, Dr James—Notes on Sunar-  
gaon, Eastern Bengal  
[*II* xliii, pt. i, 82
- Wise, Dr J—On the Barah Bhūyas  
of Eastern Bengal  
[*II* xliii, pt. i, 197, xliii, pt. i, 181  
*See* BLOCHMANN, II
- Wise, Dr T A—An Experimental  
Inquiry into the means employed  
by the Natives of Bengal for mak-  
ing Ice [*II* ii 80  
Peculiarities and Uses of the Pillar  
Towers of the British Islands  
[*II* xxxiii, 552.
- Withecumbe, Dr J R—Mean Tem-  
perature and fall of rain at Darjil-  
ing, Sikkim, Himalayah, 1848 to  
1855 [*II* xxvi 63
- Wood, Browne—Extracts from a  
Report of a Journey into the Naga  
Hills, in 1844 [*II* xii, 771.
- Wood, Lieut—Report on the River  
Indus (Sections 1 to 5) [*II* x, 518
- Wood-Mason, James—On Polydac-  
tylism in a Horse [*Proc* 1871, 18.  
Contributions to Indian Craniology.  
—On Indian and Malayan Telphu-  
sidæ Part I  
[*II*, xl, pt. ii, 189, 201, 449.

Wood-Mason, James (*contd*)—Remarks on Mr Peal's Account of several Naga Tribes in Asam

[*Proc* 1872, 49]

On *Nephropsis Stewarti*, a new Genus and Species of Macrurous Crustaceans, dredged in deep water off the Eastern Coast of the Andaman Islands [*Proc* 1872, 151]

Note on certain Species of *Phasmidæ*, hitherto referred to the genus *Bacillus*. [*Proc* 1873, 148]

Remarks on a Specimen of *Carcinus Maenas*, Pennant [*Proc* 1873, 172]

On *Nephropsis Stewarti*, a new Genus and Species of Macrurous Crustaceans [*Jl* xlii pt ii, 39]

On new or little-known Species of *Phasmidæ*, Part I—Genus *Bacillus* [*Jl* xlii, pt ii, 45]

On *Rhopalohynchus Kröyeri*, a new Genus and Species of *Pycnogonidi* [*Jl* xlii, pt ii, 171]

On a new Genus and Species (*Hylæcarinus Humeri*) of Land Crabs from the Nicobar Islands [*Jl* xlii, pt ii, 258]

Abstract of Remarks on Drawings of Blind Crustaceans [*Proc* 1874, 180]

Note on *Tricentotoma Childreni* Gray [*Proc* 1874, 181]

On the Occurrence of a Supraorbital Chain of Bones in the *Arboricola* (Wood-Partridges) (Plate II) [*Jl* xliii, pt ii, 254]

Remarks on Measurements of Crania of Mongoloid races [*Proc* 1875, 97]

Exhibition of a Gigantic Stridulating Spider. [*Proc* 1875, 197]

Exhibition of Photographs of *Rhinoceros Sondaicus* and *R. Indicus* [*Proc* 1875, 229.]

Exhibition of new Crustaceans of the genera *Paratelpusa*, *Astacus*, *Coronis*, *Gonodactylus Squilla*, and *Clorida* [*Proc* 1875, 230]

On new or little-known Species of *Phasmidæ*, with a brief Preliminary Notice of the Occurrence of a Claspng Apparatus in the males throughout the family

[*Jl* xlii, pt ii 215]

Exhibition of Specimens of new or little-known Phasmideous Insects and of new fresh-water *Astacidae* from New Zealand [*Proc* 1876, 3]

Description of a new Rodent from Central Asia. [*Proc* 1876, 80]

Wood-Mason, James (*contd*)—Exhibition of forms of *Arthropoda* new to India, and of some remarkable Species of *Mantidæ*, with Remarks on the use of the femoral brushes of the *Mantidæ*

[*Proc* 1876, 174.]

Description of a new Species of *Phasmidæ*. [*Jl* xlii pt ii, 47]

Description of a new Species of *Cetonidæ* [*Jl* xlii pt ii, 52]

Descriptions of new Species of *Blattidæ* belonging to the Genus *Panesthia* [*Jl* xlii, pt ii, 189]

Exhibition of a Specimen of a Newt from Sikkim [*Proc* 1877, 53]

Exhibition of Specimens of new and little known Insects collected by Mr Limborg in Upper Tenasserim

[*Proc* 1877, 160.]

Notes on *Phasmidæ*

[*Jl* xlii, pt ii, 342]

Description of a new Lepidopterous Insect belonging to the Genus *Thaumantis* [*Jl* xliii pt ii, 175]

Exhibition of a Head of *Oria poli* [*Proc* 1879, 280]

Preliminary Notice of a new Genus (*Paractatosoma*) of *Phasmidæ* from Madagascar, with brief Descriptions of its two Species

[*Jl* xliii, pt ii, 117]

Exhibition of Butterflies from the Andamans [*Proc* 1880, 102]

Exhibition of some Butterflies from the Andamans, from Mussoorie and from Sibsagar [*Proc* 1880 124]

Synopsis of the Species of *Choeradodis* a remarkable Genus of *Mantodea* common to India and Tropical America [*Jl* xlii pt ii, 82]

Description of a new Species of Diurnal Lepidoptera belonging to the genus *Hebomoia*

[*Jl* xlii pt ii 124]

On a new Species of *Papilio* from South India with Remarks on the Species allied thereto

[*Jl* xlii, pt ii, 141]

Description of the Female of *Hebomoia Roeslerstii*

[*Jl* xlii, pt ii 170]

On the Lepidopterous Genus *Emena* with the Description of a new Species [*Jl* xlii, pt ii 175]

Description of a new *Papilio* from the Andaman Islands

[*Jl* xlii, pt ii 178]

Description of *Parantirrhora Marshalli* the Type of a new Genus and Species of Rhopalocercous Lepidoptera from South India

[*Jl* xlii, pt ii, 215]

- Wood-Mason, James (*contd*)—On some Lepidopterous Insects belonging to the Rhoplocerous Genera *Eurypus* and *Penthema* from India and Burmah [Jl 1 pt ii 85  
Description of a new Species of the Lepidopterous Genus *Eurypus* from North Eastern India [Jl 1, pt. ii, 21  
On new and little-known *Mantoca* [Jl 1 pt ii 272
- Wood-Mason, J, & Dr Nicéville, Lionel—List of Diurnal *Lepidoptera* from Port Blair Andaman Islands with Descriptions of some new or little-known Species and of a new Species of *Hestia* from Burmah [Jl xlix pt ii 223  
List of Diurnal *Lepidoptera* inhabiting the Nicobar Islands [Jl 1 pt ii 224  
Second List of Rhoplocerous *Lepidoptera* from Port Blair Andaman Islands with Descriptions of and Notes on new and little-known Species and Varieties [Jl 1, pt ii 243  
Second List of Diurnal *Lepidoptera* inhabiting the Nicobar Islands [Jl 1 pt ii 14
- Wrede, F—Account of the St Thomé Christians on the Coast of Malabar [Jl Res vii, 364
- Wroughton, Capt R—Statistical, Agricultural and Revenue Return of Mathra District, made up to 1st October 1835 [Jl v 216  
Account and Drawing of two Burmese Bells now placed in a Hindu temple in Upper India [Jl vi 1064
- Wyat—Letter on a Shoal of Dead Fish [Proc 1872, 43
- Wynne, A B—Notes on the Earthquake in the Punjab of March 2nd, 1878 [Jl xlvii, pt ii, 131
- Yarkand Mission, Memorandum of Subjects for scientific observation for the Members of the [Proc 1873, 123
- Yates, Rev William—Essay on Sanskrit Alliteration [Jl Res xx pt i, 135  
Review of the Naishadha Charita or Adventures of Nala Rájá of Naushadha, a Sanskrit Poem, by Shri Harsha of Cashmir, with a Commentary by Prema Chandra Published by the Asiatic Society, 1336 [Jl Res xx, pt ii, 318  
Yezd to Herat, Itinerary from [Jl xxii, 827
- Young, Capt C B—A few Remarks on the subject of the Laterite found near Rangoon [Jl xxii, 196
- Yule, Lieut-Col Henry—Notes on the Iron of the Kasia Hills for the Museum of Economic Geology [Jl xi, 853  
Notes on the Kasia Hills and People [Jl xiii 612  
A Canal Act of the Emperor Akbar, with some Notes and Remarks on the History of the Western Jumna Canals [Jl xv 213  
An Account of the Ancient Buddhist Remains at Pagán on the Iráwádi [Jl xxvi, 1  
A few Notes on Antiquities near Jubbulpoor [Jl xxx 211  
Notes of a Brief Visit to some of the Indian Remains in Java [Jl xxxi 16  
See D MAZUZE VERY REV THOMINE
- Yunan Expedition, Suggestions for the [Proc 1875, 2
- Zeller, Dr G—Algarum Species in India Orientali Centrali a S Kurz collectas determinavit [Proc 1875 96  
Algae collected by Mr S Kurz in Arakan and British Burmah, determined and systematically arranged [Jl xlii, pt. ii, 175



CENTENARY REVIEW  
OF THE  
ASIATIC SOCIETY OF BENGAL  
*From 1784—1883.*

---

PART II.  
ARCHAEOLOGY, HISTORY, LITERATURE, &c.

BY  
DR A F RUDOLF HOERNLE

---

Published by the Society.





## P R E F A C E.

---

THE subjects which were set apart for the investigation of the Literary Section of the Society are "Literature, Philology, History, Antiquities, Religion, Manners and Customs, and whatever is comprehended under the general term of Literature." Among these History and Antiquities are very closely connected with one another, the latter being subservient to a correct knowledge of the former. Hence the two first chapters of this Review are devoted to a survey of the results of antiquarian and archæological enquiry which are set out under the two heads of Antiquities, including ancient monuments, inscriptions, etc., and Coins. Next follows a chapter, giving a historical sketch of the two greatest discoveries to which the Society can lay claim, and which are directly based on its archæological researches, those of the decipherment of the Indian Pāli and the Arian Pāli alphabets. The next in order is a chapter containing a statement of the discoveries in Indian History, which were the natural result of the successful reading of the ancient inscriptions on stones, copper-plates and coins. The last chapter gives the results of the investigations into the Language and Literature of India and its multifarious races.

In compiling the several chapters, the writer has attempted to take as his model one of the best specimens of a review of this kind which forms the Introduction to the well-known *Arjana Antiqua* of Professor H. H. Wilson,

than whom the Society perhaps possessed no better writer. One portion, indeed, of that Introduction, reviewing the history of coin-discovery during the earlier half of the century, up to the year 1840, has been, as far as possible, adopted into the chapter on coins, the fresh portion of which mainly consists in continuing Professor Wilson's review through the remaining half of the century.

The system of transliteration is very imperfect. This is to be regretted ; for various reasons—one of them being the want of the necessary type—it was found to be impossible to carry through a more perfect one.

R. H.

---

## CONTENTS

## CHAPTER I

Astronomers 1

## CHAPTER II

Corys 28

### CHAPTER III

Ancient Indian Minarets 50

## CHAPTER IV

History 82

## CHAPTER V

LANGUAGE AND LITERATURE 137

## LIST OF ERRATA AND APPENDIX 198

APPENDIX (to the Chapter on History)—

No. 1 ... 199No II 203CLAS-HIRD INDIA (*of Papers and Notices*) 217I—Antiquities 1 and xcmII—Coins, Gems, Weights and Measures . . . . . 221III—History xlviii „ ciIV—Language and Literature LanguageV—Religion, Manners and Customs, etc. LXXXIII., cm.



Centenary Review  
OF THE  
ASIATIC SOCIETY OF BENGAL  
*From 1784 to 1885.*

—♦♦♦—

Part II.  
ARCHÆOLOGY, HISTORY, LITERATURE, Etc

—

CHAPTER I.

ANTIQUITIES.

[Ancient Monuments — topes, temples, monoliths, etc.,  
on rocks, pillars, stone-slabs, copperplates, etc.,  
historic remains, etc.]

ous accidents. If these be carefully preserved and diligently examined, and the facts ascertained from them be judiciously employed towards elucidating the scattered information, which can be yet collected from the remains of Indian literature, a satisfactory progress may be finally made in investigating the history of the Hindus."<sup>1</sup>

This remark is illustrated by the very first two ancient monuments, the discovery of which is recorded in any of the publications of the Society, and which, as it happened, have proved of very great consequence. For they led, as will be shown in a later place, one to the decipherment of the so-called Kutila, the other to the discovery of the so-called Gupta, characters. The former monument was the well-known monolith pillar of Buddal, the other were the celebrated Nágárjuní caves near Buddha Gaya, both described in 1785 in the first volume of the Asiatic Researches by Mr Charles Wilkins and Mr. John Herbert Harington respectively.<sup>2</sup> Curiously enough it was nearly a century afterwards, in 1874, that a transcript of the text of the Buddal Pillar inscription was for the first time published in the Journal by Babu Pratapa Chandra Ghosh.<sup>3</sup>

In the first volume of the Researches there is also a brief account by Mr. William Chambers of some sculptures and ruins at Mavalipuram (Mahábalipuram) on the Coromandel Coast in South India,<sup>4</sup> the ancient inscriptions on which were a few years afterwards brought to notice by Mr J. Goldingham,<sup>5</sup> and which, much later, in 1853, were re-described by Mr. C. Gubbins in the Journal.<sup>6</sup> The former also

<sup>1</sup> As Res, Vol. IX p 398      <sup>2</sup> As Res, Vol I pp 131 276, Vol II p 167,  
 republished in J A S B, Vol. XVI, p 594      <sup>3</sup> J A S B, Vol. XLIII, p 356  
<sup>4</sup> As Res, Vol. I, p 145      <sup>5</sup> *Ibid*, Vol. V p 69      <sup>6</sup> J. A. S B, Vol. XXII,  
 p 656.

communicated some account of the well-known caves in Elephanta and the sculptures contained in them.<sup>1</sup>

About the same time, in 1795, the Society's attention was first directed to the famed monuments of antiquity on the site of old Delhi, the best known of which, the Qutab Minár, was measured and described by Ensign James T. Blunt.<sup>2</sup> His sketch of the Minár made in 1794 has a peculiar interest, as it shows that tower still crowned by the Sultan Fíúz Sháh's old cupola of red granite, which was thrown down in 1803 by an earthquake. Copies of the Persian inscriptions on the Minár were afterwards, in 1822, supplied by Mr Walter Ewer.<sup>3</sup> A general description of old Delhi as it appeared in 1793 was contributed by Lieutenant William Franklin.<sup>4</sup> On the opposite side of India, the ancient city of Pegu and its chief temple were briefly noticed in 1798 by Captain Michael Symes,<sup>5</sup> and the ancient pagoda of Perwattum with its sculptures in South India, by Major Kirkpatrick, from the journals of Captain Colin Mackenzie.<sup>6</sup>

But the most interesting communication of this period is Mr Jonathan Duncan's account of the discovery of two urns in a so-called tope or stúpa at Sárnáth, about four miles from Benares.<sup>7</sup> This is the first mention of a monument of that class, which thenceforth was destined to prove one of the most important factors in opening up the ancient history of India through the coins, inscriptions, and other objects found in them. "In 1794, a native, digging for stones from extensive ruins at this spot, discovered, twenty-seven feet below the surface, a stone urn, of the size and shape of the Barberini vase enclosing one also

<sup>1</sup> *As Res*, Vol IV, p 409      <sup>2</sup> *Ibid*, p 313      <sup>3</sup> *Ibid*, Vol XIV, p 480

<sup>4</sup> *Ibid*, Vol IV, p 419      <sup>5</sup> *Ibid*, Vol V, p 111      <sup>6</sup> *Ibid*, p 303      <sup>7</sup> *Ibid*, p 131





direction of Captain James Hoare, and presented by him to the Society, among which the most important were copies of the inscriptions on the celebrated pillars of Dehli and Allaha-bad<sup>1</sup> Both were about thirty years afterwards, in 1834 and 1837, republished in a more complete form by Mr. J. Prinsep, in the third and sixth volumes of the Journal, from drawings and copies prepared by Lieutenant T. S. Butt<sup>2</sup> In 1807, Mr. H. T. Colebrooke published a series of inscriptions on stone and copper of subordinate value. They had been presented to the Society from time to time, and came from Tripura, Gorakhpur, Chitradurg, Kuru-gode, Kuriah, Dinápur, Nidigal, Gouda, and Benares<sup>3</sup> In the same year also were published for the first time by Major C. Mackenzie figures, with inscriptions, of some celebrated Jain statues, especially of the gigantic image of Gomatesvara Srámi near Belligola<sup>4</sup> A Sanskrit stone inscription of the Chandel Rájas was communicated in 1813 by Lieutenant W. Price, who had found it at the foot of a rocky hill in the vicinity of the town of Mow, about ten miles from Chatterpur<sup>5</sup> It was the first authentic notice of that line of mediæval princes of Bundelkhand, on whose history subsequent discoveries of inscriptions have thrown so much light<sup>6</sup>

In 1816, Mr. John Crawford presented to the Society an account of the Buddhist temple ruins situated about Pambanan in Java,<sup>7</sup> and Captain G. Sydenham, of the stately Muhammadan architecture in Byapur, called "the Palmyra of the Dekkan" by Sir James Mackintosh<sup>8</sup> In

<sup>1</sup> As Res Vol VII p 175    <sup>2</sup> J A S B Vol III pp 105, 114 118, see also p 257, and Vol VI p 506 see also p 963    <sup>3</sup> As Res, Vol IX, pp 398 401, 406, 412 421 422, 432, 434 438 441    <sup>4</sup> *Ibid* pp 256, 264 272    <sup>5</sup> *Ibid*, Vol VII, p 358    <sup>6</sup> J A S B, Vol VIII, p 159, Vol XXXII, p 273, Vol XLVII, pp 73, 80    <sup>7</sup> As Res, Vol XIII, p 337    <sup>8</sup> *Ibid* p 431

1825, Professor H. H. Wilson published some Sanskrit inscriptions, translated by Captain E. Fell, from Gairha, Mandala, Hansi, and Benares, which gave a "tolerably satisfactory idea of the series of princes who reigned at Kanauj and Delhi" about the time of the Muhammadan conquest.<sup>1</sup> In the same year, Mr. R. Jenkins presented an account of the ancient Hindu remains in Chhattisgarh, together with some copperplate inscriptions, written in the square box-headed characters; a variety of monumental writing first made public on that occasion.<sup>2</sup> Mr. A. Stirling also drew attention to the ancient temples and other antiquities of Orissa. Among the latter is specially noteworthy his copy of a portion of the famous Khandagiri rock inscription in the Asoka characters, then first made known.<sup>3</sup> It was republished in the *Journal*, in 1837, in a more complete form, by Mr. J. Prinsep, from copies prepared by Lieutenant Kittoe.<sup>4</sup> In the following volume of the *Asiatic Researches*, in 1828, the Rev G. H. Hough made known an inscription engraved on the Great Bell of Rangoon.<sup>5</sup> In the same volume Professor H. H. Wilson again published a large series of forty-three Sanskrit inscriptions found on Mount Abú, many of which are of much interest, because "they throw considerable light upon the religious and political history of a place which is of high consideration in the west of India, and elucidate the early career of different Rájput dynasties," such as the Chalukyas, Pramaras, Guhilas, Chauháns, etc.<sup>6</sup> The Jain temples on Mount Abú, in which some of these inscriptions occur, were described in the *Journal* of 1833 by Lieutenant Burnes.<sup>7</sup>

<sup>1</sup> *As. Res.*, Vol. XV, pp. 436, 437, 443, 446, 460

<sup>2</sup> *Ibid.*, pp. 497, 506

<sup>3</sup> *Ibid.*, pp. 163, 306, 313, 329, 330, 337

<sup>4</sup> *J. A. S. B.*, Vol. VI, p. 1050

<sup>5</sup> *As. Res.*, Vol. XVI, p. 270

<sup>6</sup> *Ibid.*, pp. 284, 317

<sup>7</sup> *J. A. S. B.*, Vol. II, p. 161

The most important event of this time was the opening of the great tope at Manikyála, which had been already observed and described by Elphinstone in 1808<sup>1</sup>. It was effected by General Ventura in 1830. An account of it in French was forwarded by the General to Calcutta and published by Professor H. H. Wilson in the Asiatic Researches in 1832,<sup>2</sup> and republished later, in 1834, in an English version, by Mr J. Prinsep, in the Journal.<sup>3</sup> Lieutenant Alexander Burnes, who afterward visited the opened tope, made known in 1833 some further particulars concerning it,<sup>4</sup> and so did Major J. Abbot on a much later visit in 1853.<sup>5</sup> A good deal more information on this tope, as well as on some others in the Panjab and in Afghanistan which were opened by General Court and Messrs Honigberger and Masson respectively, was made public in the Journal for 1834 by Dr Gerald and Mr. J. Prinsep, derived from the letters and journals of the original discoverers.<sup>6</sup>

The Journal of the year 1834 is particularly rich in the record of discoveries. Thus Captain P. T. Cautly announced the important discovery by him of the remains of an ancient town at Behat, near Saharanpur, seventeen feet below the present surface of the country and upwards of twenty-five below that of the modern town of Behat. Various relics were found, and one hundred and seventy coins, all of very ancient date (Indo-Scythian and early Buddhist), fixing the age of the town in the earliest centuries of our era.<sup>7</sup> Mr B. H. Hodgson communicated the discovery of three *lâths* or monumental pillars, with inscriptions in the Asoka characters on them.

<sup>1</sup> See *Ariana Antiqua*, p. 31    <sup>2</sup> *As Res* Vol. XVII, pp 563, 600    <sup>3</sup> J. A. S. B., Vol. III, p. 315    <sup>4</sup> *Ibid*, Vol. II, p. 308    <sup>5</sup> *Ibid*, Vol. XXII, p. 570.  
<sup>6</sup> *Ibid*, Vol. III, pp 321, 329, 556    <sup>7</sup> *Ibid*, pp 43, 221, 227

Among them were the now well-known Radhiah and Mathiah Pillars. Two of the pillars, those at Bakhiah in Tihut and Radhiah in Sârun, had been already noticed in 1784 by Mr Law, and later by Mr Stirling; and of the Mathiah Pillar Mr. Hodgson himself had sent a notice already ten years previously; but at that time these notices appear to have attracted no attention. Their importance, however, was now recognized by Mr. J. Prinsep, who, seeing at once that the inscriptions they bore were identical with those on the pillars of Allahabad and Dehli, published them in full<sup>1</sup> At the same time, his attention having been recalled by Mr. Hodgson to the famous Sanchi Tope and its inscriptions near Bhilsa, he reprinted a description of them from the *Calcutta Journal* of the 11th July, 1819, where it had been published by Captain E. Fell, the original discoverer of the Tope<sup>2</sup> Several of the inscriptions taken by Captains Smith and Burt, and drawings of the monuments and its sculptures prepared by Captain Murray, were published by Mr. J. Prinsep later on, in the sixth and seventh volumes of the *Journal*, in 1837 and 1838<sup>3</sup> They led to important results, enabling Mr Prinsep, as will be related in another place, to extend his discoveries and to complete the deciphering of the ancient alphabet and inscriptions on the staff of Firoz Shah, on the Buddhist coins of Behat, and on the rocks in Orissa and Guzerat<sup>4</sup> An important link, however, in the chain of events, which led to these discoveries, was the publication by Mr. W H Wathen, in 1835, of two Vallabhi copperplate grants found in the

---

<sup>1</sup> J A S B Vol III, pp 481, 483 and Vol IV p 124      <sup>2</sup> *Ibid*, Vol III, pp 488-490      <sup>3</sup> *Ibid*, Vol VI, pp 451ff, Vol VII, pp 562ff      <sup>4</sup> See Ariana Antiqua, pp 33, 34

western part of Guzerat, and written in an alphabet intermediate between that of Asoka and the Guptas <sup>1</sup>

In the Journal of the same year, 1835, various ancient ruins were described ; those of Simaun, once the capital of the Mithila Province, by Mr B H Hodgson ,<sup>2</sup> those of an ancient city near Bakhra, north of Patna, by Mr J Stephenson ,<sup>3</sup> those at Cháidwái in Assam, by Captain G. E Westmacott ,<sup>4</sup> and those of the Baynáth Temple at Harsha in Shekáwati, by Sergeant E Dean <sup>5</sup> A long inscription of the tenth century was found in the latter place and published by Dr W H Mill <sup>6</sup> In the following year, 1836, Mr C Masson contributed some notes on the antiquities of Bámián, especially of its caves and colossal idols, which had already been noticed in 1833 by Lieutenant Alexander Burnes <sup>7</sup> Mr. L Wilkinson made known a copperplate grant found at Piphanagar in the Shujalpur Pergunah, which turned out to be of some importance as it supplemented the list of Rájas of Malva by four hitherto unknown names <sup>8</sup> Colonel H Burney reported the discovery of some Buddhist images at Tagoung, the ancient capital of Burma, which were inscribed with the well-known Buddhist creed in Gupta characters and in the Pali language <sup>9</sup>

By this time copies of such a large number of inscriptions of diverse kinds, which had been discovered from time to time, had been accumulating in the hands of the Society, that it was feared that they might be mislaid or lost sight of, before anyone was found with sufficient leisure to decipher them completely, unless they were at once com-

<sup>1</sup> J A S B Vol IV, p 477    <sup>2</sup> *Ibid*, p 121    <sup>3</sup> *Ibid*, p 128    <sup>4</sup> *Ibid*, p 185    <sup>5</sup> *Ibid*, p 361    <sup>6</sup> *Ibid*, p 367    <sup>7</sup> *Ibid*, Vol. V, p 707, see also Vol II, p 561    <sup>8</sup> *Ibid*, Vol. V, p 378, see also Vol. VII, p 73b, for another grant.    <sup>9</sup> *Ibid* Vol V, p 157

mitted to print. Accordingly, Mr. J. Prinsep published in 1836, in the fifth volume of the *Journal*, a long series of facsimiles of ancient inscriptions, including those from Wara in South Konkan, from the Damatha Cavern near Maulmain, from the fort of Chunar near Benares, from Barahat in Garhwál, from Iskardo in Little Tibet,<sup>1</sup> from the caves of Ajunta,<sup>2</sup> from Asীগari, from Peshawar (on a bronze image), from Kumaon (on bronze tridents at Barahat and Gopesvara),<sup>3</sup> from Tincomalee and other places in Ceylon,<sup>4</sup> from Buddha Gaya,<sup>5</sup> from Seoni (five copperplates), and a few from unknown places.<sup>6</sup> This series of facsimiles was continued in the volumes for 1837 and 1838, which contain the following inscriptions: from the Amrávati Tope (from Colonel Colin Mackenzie's manuscripts),<sup>7</sup> from Kalanjar in Bundelkhand, from Gumsai (three copperplates), from the Nágájuní Caves near Gaya, from a rock at Singapur,<sup>8</sup> from Illahabas in the Bareilly District (found by Mr. H. S. Bouldeson in 1826 or 1827), from Mullaje (three copperplates),<sup>9</sup> from Hund near Attock, from Jayanagar in Bundelkhand (the sixth),<sup>10</sup> from Gorakhpur (on the Kubaon pillar), from Bakerpore in Eastern Bengal (copperplate), from Ajmir (on a Jain image),<sup>11</sup> from Cuttack (Brahmesvara temple),<sup>12</sup> from Warangal, from Kana in Guzerat (copperplates),<sup>13</sup> from Bageswar near Almora in Kumaon,<sup>14</sup> and again a few from unknown places.<sup>15</sup>

Early in 1837, the Rev Dr. W. H. Mill made known a Gupta inscription, copied by Lieutenant (now Major General) A. Cunningham from the newly-discovered Bhitari

<sup>1</sup> J A S B, Vol V, pp 340, 341, 347, 348<sup>1</sup>    <sup>2</sup> *Ibid*, pp 348, 556    <sup>3</sup> *Ibid*, pp 482, 484, 485, see also Vol VII, p 39    <sup>4</sup> *Ibid*, Vol V, pp 454, 456    <sup>5</sup> *Ibid*, p 657.    <sup>6</sup> *Ibid*, p 724    <sup>7</sup> *Ibid*, Vol VI, p 218    <sup>8</sup> *Ibid*, pp 665, 667, 671, 680, see also Vol XVII, Part I, p 154; Part II, p 66    <sup>9</sup> *Ibid*, Vol. VI, pp 569, 876, 887    <sup>10</sup> *Ibid*, Vol VII, pp 33, 40, 51    <sup>11</sup> *Ibid*, p 557    <sup>12</sup> *Ibid*, pp 901, 908, 966    <sup>13</sup> *Ibid*, p 1056    <sup>14</sup> *Ibid*, Vol VI, pp 278, 663

Lath (or Pillar) in the Ghazipur District,<sup>1</sup> while a little later, Mr. J Prinsep republished the Gupta inscription on the Allahabad Pillar from impressions taken by Captain Edward Smith.<sup>2</sup> He also published two collections of smaller inscriptions in the most ancient characters, which had been newly made. one by Major Kittoe from the caves at Udayagni and Khandagiri in Cuttack<sup>3</sup> (Eastern India), the other by Colonel W H Sykes from the caves (Kaile, Samhadu) of Western India<sup>4</sup> In the following year, 1838, he crowned his labours in this direction by the publication of copies of the celebrated great rock inscriptions at Dhaul and Girnar (of Asoka and Chandragupta), together with detailed descriptions of their localities, the materials for which had been supplied to him by Major Kittoe, Captain Lang, Lieutenant Postans, and the Rev Dr J. Wilson<sup>5</sup> To these he added the smaller, though no less important, Gupta inscriptions at Dehli and Eran, taken in ectype by Capt T S Burt<sup>6</sup> Of the latter, those at Eran were later on, in the year 1861, re-deciphered and re-translated by FitzEdward Hall<sup>7</sup>

As already mentioned, for much of his information Mr Prinsep was indebted to Major Kittoe, who had been deputed by the Coal and Mineral Committee to explore the supposed coal-fields of Orissa He left "with a determination to make the most of his time and journey, also of the small pecuniary allowance made for the purpose, in antiquarian and other research beyond the mere exploring of the coal localities" The results of these antiquarian researches were communicated, in 1838, in the seventh volume of the Journal, including descriptions and drawings of caves

---

<sup>1</sup> J A S B, Vol VI, p 1    <sup>2</sup> *Ibid*, p 969    <sup>3</sup> *Ibid*, p 1072    <sup>4</sup> *Ibid*, p 1038    <sup>5</sup> *Ibid*, Vol. VII, pp 219, 334, 434, 865    <sup>6</sup> *Ibid*, p 629    <sup>7</sup> *Ibid*, Vol XXX, p 14, see also Vol XXXIV, p 38



(Udayagiri), temples (Gramesvara, and others), pillars (at Jājipur), inscriptions, etc.<sup>1</sup> In the same volume is published an inscription in Burmese and Talain "with an admixture of Pali at the commencement and termination," engraved on a large Airacan Bell, which was taken by Captain Wroughton. This bell was then at Nadroighat, in the Aligah District, but had originally belonged to the Gaudama Mani temple in Airacan. The somewhat romantic story of how it was carried off from there by a native non-commissioned officer after the war in 1825 is related in the sixth volume of the Journal.<sup>2</sup> The inscription happens to contain "a scrap of history of no small interest in its way"<sup>3</sup>

With the year 1838 the era of great discoveries may be said to have closed. Not much was done in 1839, but the joint editors of the Journal published a new Chandel inscription discovered and copied by Captain T. S. Burt from a slab in the temple of Lālaji at Khajuráo in Bundelkhand,<sup>4</sup> a Chera copperplate grant dug up at Baroda in Guzerat,<sup>5</sup> a Kulachúri copperplate grant dug up at Kumbhi in the Sagar territory,<sup>6</sup> and a Tomára inscription on a slab originally at the fort of Rohtas in Behar.<sup>7</sup> The latter had been brought to their notice by Mr E. L. Ravenshaw, who also contributed some account of various other antiquities (Persian and Sanskrit inscriptions) in Behar.<sup>8</sup>

The following year, 1840, was again signalled by a small, though most important, discovery. It was that of a new specimen of an Asoka edict, which was found by Captain Burt engraved on a rock near Banat or Bhabia.<sup>9</sup> Another small contribution was made by Captain Burt, in

<sup>1</sup> J. A. S. B., Vol. VII, pp. 53, 660, 679, 828, see also Vol. XXV, p. 222

<sup>2</sup> *Ibid.*, Vol. VI, p. 1064      <sup>3</sup> *Ibid.*, Vol. VII, p. 287      <sup>4</sup> *Ibid.*, Vol. VIII, p. 159

<sup>5</sup> *Ibid.*, p. 292      <sup>6</sup> *Ibid.*, p. 487      <sup>7</sup> *Ibid.*, p. 693      <sup>8</sup> *Ibid.*, p. 347      <sup>9</sup> *Ibid.*,

Vol. IX, p. 616

an inscription from Udavapur near Sagar, which deserves particular mention, because the date is given in three eras of Vikramáditya, Saliváhana, and Udayáditya,<sup>1</sup> the last of which was new. Of some importance is also a very ancient inscription from the fort of Behar, communicated by Mr Ravenshaw, written in badly - formed characters of the Gupta style.<sup>2</sup> Major Jenkins made known an ancient Assamese land grant on three copperplates, dug up near Tez-pore in the Durrang Division.<sup>3</sup> Another copper land grant, of the Rathor Prince Jaya Chandra of Kanauj, found near Fyzabad in Oudh, was made known in the following year 1841.<sup>4</sup> But a far more interesting publication of that year was the account of the opening of the ancient topes at Kanheri near Bombay, and at Damuta in Afghanistan, by Dr James Bird and Lieutenant Pigon respectively. The usual relics, consisting of inscriptions, coins, jewels, etc., were found in them.<sup>5</sup> Lieutenant Alexander Cunningham published a sketch of the second silverplate found by Dr Loid in Badakshan, a drawing of the first patera having been already given in 1838 in the seventh volume of the Journal.<sup>6</sup> Two inscriptions from the neighbourhood of Mount Abú (Vasantgarh), dated in Samvat 1099 and 1053, both discovered and taken by Captain T S Burt, were also made known by the editors of the Journal.<sup>7</sup>

The period including the years 1842 to 1846 is one of the most barren of discoveries, so far as recorded in the pages of the Society's Journal. But the only two communications,—one, in 1842, of an ancient Himaític stone inscription found near "Aden,"<sup>8</sup> the other, in 1844, of a

---

<sup>1</sup> J. A. S. B., Vol. IX, p. 545, see also Vol. VII, p. 1056    <sup>2</sup> *Ibid.*, Vol. IX, p. 65, see also Vol. VIII, p. 347    <sup>3</sup> *Ibid.*, Vol. IX, p. 766    <sup>4</sup> *Ibid.*, Vol. X, p. 98  
<sup>5</sup> *Ibid.*, pp. 94, 381    <sup>6</sup> *Ibid.*, p. 570, and Vol. VII, p. 1047    <sup>7</sup> *Ibid.*, Vol. X, pp. 664, 819, 821    <sup>8</sup> *Ibid.*, Vol. XI, p. 958

Chinese inscription on a wooden tablet in a Buddhist monastery at Ningpo,<sup>1</sup>—have at least the interest of illustrating the wide sphere embraced by the researches of the Society.

With the year 1847 a new period of archæological activity commenced, worthily introduced by Captain M. Kittoe, who supplied much fresh information on the numerous antiquities in Behar,<sup>2</sup> especially on the caves and their inscriptions at Barábar,<sup>3</sup> the sculptures at Buddha Gaya, etc.,<sup>4</sup> and the temples and inscriptions at Oomga.<sup>5</sup> Mr. D. Money contributed an account of the ruined old temple of Tübeni near Hughli;<sup>6</sup> Captain J. D. Cunningham, of the antiquities in the districts within the Bhopal Agency, including the well-known topes near Blulsa;<sup>7</sup> and Mr Henry Cope, of the ruins of Ranode in the Chandorí District of Scindiah's dominions.<sup>8</sup> Captain James Abbott reported the discovery of some sculptures in the Panjab, showing traces of Greek influence.<sup>9</sup> A higher interest possess the contributions of Mr. William Knighton, who described the dagobahs (or topes) and viháras of Anuradhapura, the former capital of Ceylon, and the rock temples at Dambool, also in Ceylon.<sup>10</sup>

The volume of the following year, 1848, is again replete with descriptions of antiquities; thus, those of Sauguja and its neighbourhood, by Lieutenant-Colonel J. R. Ousley,<sup>11</sup> those at Kalinjar in Bundelkhand, by Lieutenant F. Maisey;<sup>12</sup> those in the vicinity of Suddjah in Upper Assam, by Major S. F. Hannay;<sup>13</sup> those at Pukarí, near Udayapur, by Captain J. D. Cunningham.<sup>14</sup> A few inscriptions were also pub-

<sup>1</sup> J A S B, Vol XIII, p 113<sup>2</sup> *Ibid*, Vol XVI, p 272<sup>3</sup> *Ibid*, p 401<sup>4</sup> *Ibid*, p 334<sup>5</sup> *Ibid*, pp 656, 1220<sup>6</sup> *Ibid*, p 393<sup>7</sup> *Ibid*, p 739<sup>8</sup> *Ibid*, p. 1079<sup>9</sup> *Ibid*, p 664<sup>10</sup> *Ibid*, pp 213, 340<sup>11</sup> *Ibid*, Vol XVII,

Part I, p. 65.

<sup>12</sup> *Ibid*, p 171<sup>13</sup> *Ibid*, p 459<sup>14</sup> *Ibid*, p 305

lished, one from the Vijaya Mandir in Udayapur, another of a copperplate grant,<sup>1</sup> and a third, a Buddhist one, of rather more interest, from the village of Pesserawa in Bihar.<sup>2</sup> Of still greater interest, however, were a few small inscriptions in the ancient Gupta characters, found on a granite rock at a place called Tokoon, almost directly east of Penang town in the peninsula of Malacca, and forwarded by Lieutenant-Colonel James Low<sup>3</sup> In the following year, 1849, another similar inscription was sent by him from Keddah, near Buket Muniam<sup>4</sup> In the same year, Captain James Abbott reported the discovery by him of remains of Greek sculptures in Potawar or the tableland between the Indus and Jelum in the Panjab,<sup>5</sup> and Dr. Impey announced the discovery of the famous colossal Jain figure on a spur of the Satpura Range in the district of Burwání on the Nerbada It is a colossal rock image cut in relief, nearly 80 feet high, and second only in magnitude to the celebrated so-called Bhúts at Bamiyan,<sup>6</sup> and about twice as large as the colossal figures at Kasia in the Gorakhpur District<sup>7</sup> and at Belligola in Mysore.<sup>8</sup> Two years later another colossal figure, of a head only, near Bhagalpur, was made known by Captain W. S. Sherwell It had been, however, already noticed by Dr. Buchanan in 1810<sup>9</sup> The preceding year, 1850, had brought only two small inscriptions, one on a brick found in a field in the Jaunpur District by Captain M. Kittoe,<sup>10</sup> and another, a Malva land grant, on two copperplates dug out by Mr. R. N. C. Hamilton near Oujein and published by Babu Rájendralála Mitra<sup>11</sup>

---

<sup>1</sup> J. A. S. B., Vol. XVII, Part I, pp. 68, 71      <sup>2</sup> *Ibid.*, p. 492      <sup>3</sup> *Ibid.*, Part II, pp. 62, 71      <sup>4</sup> *Ibid.*, Vol. XVIII, p. 247      <sup>5</sup> *Ibid.*, p. 131      <sup>6</sup> *Ibid.*, p. 918  
<sup>7</sup> *Ibid.*, Vol. VI, p. 477      <sup>8</sup> As Res., Vol. IX, p. 264      <sup>9</sup> J. A. S. B., Vol. XX, p. 272      <sup>10</sup> *Ibid.*, Vol. XIX, p. 454      <sup>11</sup> *Ibid.*, p. 475

The following ten years were not much more fruitful, though each year brought some more or less important discovery. Thus in 1851 we have a very short notice of certain hitherto unvisited rockcut caves near the village of Marah in Singbhûm, which had been seen by the Rev. Mather in January, 1850;<sup>1</sup> and of a fine ancient stone bridge (Sil Hako) near Gowhatty in the Kamrup District.<sup>2</sup> In 1852, we have detailed descriptions by Mr. W. Jackson and Mr. (now Sir) E. C. Bayley of sculptures found in the Peshawur District and exhibiting traces of Greek influence.<sup>3</sup> In 1853 there is a notice of an inscription from Pelhewa in the Thaneshwar District found by Mr. Bowering and published by Babu Râjendralâla Mitra.<sup>4</sup> The year 1854 brings us the two now well-known rock inscriptions found by Mr. E. C. Bayley on two large granite boulders about thirty yards apart, near the village of Khunniâra in the Kângra District. Though exceedingly small, consisting of only two or three words, they are of extreme interest, seeing that they are duplicates in the ancient Arian Pâli and Indian Pâli characters respectively.<sup>5</sup> In the same year Mr. E. Thomas also published the result of the final excavations, so far as made by Captain M. Kittoe and himself, on the site of the well-known old tope and monastery at Sârnâth near Benares.<sup>6</sup> This report was continued, in the twenty fifth volume of the Journal in 1856, from official papers communicated by the Government of the N. W. Provinces. In 1855 there is an important contribution by Captain E. Taite Dalton, giving a full description of the antiquities of Assam, especially its temples and sculptures (in Gow-

<sup>1</sup> J. A. S. B., Vol. XX, p. 283    <sup>2</sup> *Ibid* p. 291    <sup>3</sup> *Ibid*, Vol. XXI, pp. 511, 606

<sup>4</sup> *Ibid*, Vol. XXII, p. 673, see also Vol. XXXII, p. 97, Vol. XXXIII, p. 223

<sup>5</sup> *Ibid*, Vol. XXIII, p. 57    <sup>6</sup> *Ibid*, p. 469    <sup>7</sup> *Ibid*, Vol. XXV, p. 395

hatty, Tejpore, Seesee, and other places)<sup>1</sup> There is also a very meagre notice of the ruins of the deserted city of Dhúlme in Maubhúm by Mr Henry Piddington.<sup>2</sup>

With 1857 begins a series of valuable contributions on the antiquities of Burma It was commenced by Captain Henry Yule, on the ancient Buddhist remains, chiefly temples at Pugán on the Iráwadí,<sup>3</sup> and continued by Colonel (now Sir) A P Phayre, who, in 1860 added an account of an ancient Buddhist monastery, in 1863 of an old Burmese inscription, and in 1864 of some ancient tiles at the same place<sup>4</sup> In 1858, Mr FitzEdward Hall published two copper land grants of the Rathore Princes, Madanapála and Govinda Chandra of Kanauj, neither of very great importance;<sup>5</sup> and in the following year, 1859, he added a Sanskrit stone inscription, from Haisauda in the Hoshangabad District, of an unknown prince Devapála, recording the construction of a temple and a tank<sup>6</sup> In the previous year, Mr Henry Cope also made known a series of six Persian inscriptions, mostly of the earliest Moghul Emperors, all of which exist on certain public buildings in Lahor<sup>7</sup>

With the year 1861 contributions describing archaeological discoveries again began to become more numerous Thus several very important land grants were made known in that year, among them especially two grants, on two and three copperplates respectively, of king Hastin, which, being dated in terms both of the Gupta era and the Jovian Cycle, are of extreme value for the determination of the initial year of that ancient era They are said to have

<sup>1</sup> J A S B, Vol XXIV, p 1    <sup>2</sup> *Ibid*, p 207    <sup>3</sup> *Ibid*, Vol XXVI, p 1

<sup>4</sup> *Ibid*, Vol XXIX, p 346, Vol XXXII, p 267, Vol XXXIII, p 57    <sup>5</sup> *Ibid*, Vol XXVII, pp 217, 241    <sup>6</sup> *Ibid*, Vol XXVIII, p 1    <sup>7</sup> *Ibid*, Vol XXVII, p 308

been procured from Nagode in Bundelkhand, and are now deposited in the Benares College.<sup>1</sup> A third is a large stone inscription from Belhari, which throws much light on the old kingdom of Chedi and its Kulachûri princes.<sup>2</sup> A fourth is a Malava land grant on two copper-plates of the tenth century, found not far from Indore.<sup>3</sup> These four inscriptions were all made public by Mr. FitzEdward Hall. In the same year, it may be mentioned, Babu Rájendralála Mitra republished from Mr. E. Thomas's edition of J. Prinsep's *Indian Antiquities*<sup>4</sup> the important Arian Páli inscription, which had been discovered by Mr. Masson on a brass vase in one of the Wardak topes in Afghanistan.<sup>5</sup> The same made known in the following year, 1862, a number of relics and a small Arian Páli inscription found by Captain Stubbs not far from Ráwal Pindi in the Panjab, where they had been exhumed from the centre of some ruins.<sup>6</sup> Mr. Fitz-Edward Hall again published three more copper land grants of the Kulachûri princes of Chedi, one of which, however, had already appeared previously in the *Journal* of 1839.<sup>7</sup> The most valuable contribution, however, was one by Lieutenant-Colonel Henry Yule on the ancient Indian remains, both Buddhistic and Brahmanical, in the Island of Java, the existence of some of which was known from the earlier accounts of Messrs Raffles and Crawford. The temples now described were those of Mundot, Borio Bodor, and Brambanan.<sup>8</sup> In 1863, there are an account by the Rev. J. Löwenthal of some antiquities in the Peshawar

---

<sup>1</sup> J. A. S. B., Vol. XXX, p. 1, see also Genl. A. Cunningham's *Arch. Report*, Vol. X Appendix.    <sup>2</sup> J. A. S. B., Vol. XXX, p. 317.    <sup>3</sup> *Ibid.* p. 195.    <sup>4</sup> See *Ind. Ant.* Vol. I p. 163.    <sup>5</sup> J. A. S. B., Vol. XXX, p. 557.    <sup>6</sup> *Ibid.* Vol. XXXI p. 175. see also *ibid.* p. 184.    <sup>7</sup> *Ibid.*, p. 111, see also Vol. VIII p. 151.    <sup>8</sup> *Ibid.* Vol. XXXI, pp. 16, 20, 21.

District,<sup>1</sup> and some remarks on the Tavāla and other Arian Pāli inscriptions by Major-General A Cunningham and Babu Rājendralāla Mitra<sup>2</sup> The latter also published two stone inscriptions, one a Chandel one from Kajrāha in Bundelkhand, the other a Chedi one from Ratanpur in the province of Nāgpur<sup>3</sup> It may be mentioned here, that, in the volume of the Journal for the year 1863, General A Cunningham's Archæological Survey Report was published for the first time as a 'supplementary number,' communicated by the Government of India This practice was only continued, however, for three years, the Archæological Reports published in the three Journals being for the years 1861—1864<sup>4</sup>

General Cunningham's operation undoubtedly gave a new stimulus to archæological researches; for, during the next following years, contributions on this subject to the Journal grew more and more numerous, so much so that some of the volumes are almost entirely taken up by them For the most part, however, these contributions refer to remains, not of the highest antiquity, but of the middle ages, immediately before and after the Muhammadan conquest of India Thus, in 1864, the Rev J Lœwenthal sent some Persian inscriptions recorded in the tombs and mosques of Sinagar in Kashmir<sup>5</sup> Captain C. Glasford reported on the Hindu antiquities (temples, ruins, sculptures, and inscriptions) of Bustar, about eight hundred years old.<sup>6</sup> From Captain H Mackenzie there is a short note on the antiquities of Guzerat, including some inscriptions from Hailan<sup>7</sup> Babu Rājendralāla Mitra published

---

<sup>1</sup> J A S B, Vol XXXII, p 1    <sup>2</sup> *Ibid*, pp 139, 151, see also Vol XXXIII, p 35    <sup>3</sup> *Ibid*, Vol XXXII, pp 273, 277    <sup>4</sup> *Ibid*, p 1 (for 1861-1862), Vol XXXIII, p 1 (for 1863-1864), Vol XXXIV, p 295 (for 1862-1863)    <sup>5</sup> *Ibid*, Vol XXXIII, p 278    <sup>6</sup> *Ibid* p 44    <sup>7</sup> *Ibid*, pp 402, 549



a copper land grant of Mahendrapála Deva of Kanauj, found at Digheva Dúbanesar in the Sárún District <sup>1</sup> He also described some ancient Buddhist remains of a monastery excavated by Mr. Harris in connection with the East Indian Railway at Sultanganj. In it, among other relics, a colossal copper figure of Buddha was discovered <sup>2</sup>

It had all along been well known that Benares was in a sense the "birthplace of Buddhism;" yet, strange to say, hitherto few or no Buddhist remains in the city proper had been discovered, but the reason of this was that they had never been sought after. It is true, extensive ruins had been found at Sárnáth, but they were three miles distant from the present city. Accordingly a search was made in the course of the year 1863 by the Rev. M. A. Sherring and Mr. C. Horne, jointly, with much success, and an account of the remains discovered at Bakaiya-kund, Rájghát and other places, was communicated by them in 1865 and 1866 <sup>3</sup> They also reported on some ancient remains at Saidpúr and Bhitari, which hitherto had escaped notice.<sup>4</sup> Mr. C. Horne himself added a note on the already much discussed ruins of Buddha Gaya, on which subject there is also a note by Mr. W. Peppe in 1866, and by Babu Rájendralála Mitra in 1864 <sup>5</sup> The latter also published an important inscription of the Sena Rájas of Bengal, found by Mr. C. T. Metcalfe near Deoparah in Rájsháhi, which gave fresh information on the earlier members of that royal house.<sup>6</sup> In 1866, the Rev. W. G. Cowie described some of the temples of Kashmir, which had been left unnoticed by General A. Cunningham in

---

<sup>1</sup> J. A. S. B., Vol. XXXIII, p. 321    <sup>2</sup> *Ibid.*, p. 360    <sup>3</sup> *Ibid.*, Vol. XXXIV, p. 1, Vol. XXXV, p. 61, see also Vol. XLII, p. 160    <sup>4</sup> *Ibid.*, Vol. XXXIV, p. 80    <sup>5</sup> *Ibid.*, p. 278, Vol. XXXV, p. 49; Vol. XXXIII, p. 173    <sup>6</sup> *Ibid.*, Vol. XXXIV, p. 128

his Essay published in the Journal for 1848;<sup>1</sup> and three years later, in 1869, Lieutenant-Colonel D F. Newall again added the description of a few more, those of Razdan in the Lar Pergunnah<sup>2</sup> Captain W R Melville reported the discovery of some "totally new Buddhist ruins" of a temple, containing some sculptures and an inscription, situated at Dáb Kúnd in Eastern Rajputána<sup>3</sup> Mr W J. Henschel described a very curious old fort and temple of Chandiatekhagari, which he found in the jungle near Sashitaní in the Midnapúr District,<sup>4</sup> and Lieutenant-Colonel E T Dalton, some antiquities in Manblúm, some of which had been already previously noticed<sup>5</sup> Babu Rájen-dialálú Mitra made known a copper land grant from Sambalpur,<sup>6</sup> and the important well-known inscriptions of the later Guptas from Aphisai and Bihar, one of which had been already before published in 1840<sup>7</sup> In the Journal for 1867, Mr C Horne continued his antiquarian papers, one on the Jumma Masjid of Etawah, originally a Hindu temple, another on the Buddhist remains in the Mainpur District, and a third on the carvings on the Buddhist rail-posts at Buddha Gaya<sup>8</sup> A similar instance of a Hindu temple converted into a mosque was noted by Mr. W Henschel in the following year, 1868, at Gaganesvar in the Midnapur District<sup>9</sup> Babu Gaur Dass Bisack described the antiquities of Bágerhát, fifty miles south of Jessore, consisting of Muhammadan tombs and mosques, not more than four hundred years old;<sup>10</sup> and Lieutenant Ayton Pullan, some ancient Hindu temple

<sup>1</sup> J A S B, Vol XXXV, p 91, see also Vol XVII, p 241  
 Vol XXXVIII, p 177    <sup>2</sup> *Ibid*, Vol XXXV, p 168    <sup>3</sup> *Ibid*, p 181  
 p 186    <sup>4</sup> *Ibid*, p 195    <sup>5</sup> *Ibid*, p 268, see also Vol IX, p 65  
 Vol. XXXVI, pp 74, 105, 107, 157    <sup>6</sup> *Ibid*, Vol XXXVII, p 73  
 Vol. XXXVI, p 126

<sup>7</sup> *Ibid*,  
<sup>8</sup> *Ibid*,  
<sup>9</sup> *Ibid*,  
<sup>10</sup> *Ibid*,

ruins and sculptures in the dense forest at the foot of the Himálayas between Gharwál and Rohilkhund.<sup>1</sup> From Dr. A. Bastian was received the translation of an inscription existing "inside the great temple at Nakhon Vat in Kam-bodia."<sup>2</sup> In 1869, Babu Pratap Chandra Ghosha published a copper land grant of the Dor Rájás at Manpur in the Bulandshahar District;<sup>3</sup> and in 1871, two other copper land grants found at Chaibása in Singbhúm.<sup>4</sup>

The year 1870 brought some more than usually interesting accounts of discoveries. Among these was the well-known Arian Páli copperplate inscription, found in a ruined Buddhist tower at Sue Vihár near Bhawalpur, which Mr. (now Sir) E. C. Bayley made known with a tentative reading, and of which a correct translation was published about ten years later by the writer of this Review.<sup>5</sup> No less important was the celebrated series of Mathura inscriptions, which Babu Rájendralála Mitra made public. They were engraved on the remains of Buddhist buildings and sculptures, dating from the time of the Indo-Scythian kings. These remains had been found already in 1862 by Mr. Best, the Collector of Mathura, and had been removed to Calcutta in 1863, but the inscriptions on them had, until now, not been published.<sup>6</sup> Of no inconsiderable interest was also the series of Arabic and Persian inscriptions scattered over Bengal, the publication of which was commenced by Mr. H. Blochmann in the same year 1870, and by the help of which it afterwards became possible to correct and supplement the Muhammadan historians of Bengal and construct a trustworthy history of that province under its Muham-

---

<sup>1</sup> J A S B, Vol XXXVI, p 154    <sup>2</sup> *Ibid*, p 76    <sup>3</sup> *Ibid*, Vol. XXXVIII, p 21    <sup>4</sup> *Ibid*, Vol XL, p 161    <sup>5</sup> *Ibid*, Vol. XXXIX, p 65, and Proceedings for 1881, p 139    <sup>6</sup> *Ibid*, Vol. XXXIX, p 117, see also General A Cunningham's Arch Rep in J A S B, Vol. XXXIV, p 155

madan rulers. The inscriptions, together with notes on the buildings in which they occurred, which were made public by Mr. Blochmann in the year 1870, were from Tribeni, Mulla Simla, Sâtgânw, Panduah, and Dinánáth in the Hughli District<sup>1</sup> In 1871 followed inscriptions from Burdwan and Gaur, together with a few others not belonging to Bengal;<sup>2</sup> and in 1872, some from Dinájpúr, Dháká, Dhámraí, Badaon, and 'Alápúr<sup>3</sup> Finally, from 1873 to 1875, came his well-known contributions to the geography and history of Bengal during the Muham-madan period, based partly on the inscriptions already published, partly on others which were now first made known<sup>4</sup>

To return again to the year 1870, Mr. J. D Tremlett described some of the ancient Hindu and Pathan buildings of historical or architectural interest situated in or around the site of old Delhi, which had been left unnoticed in the Archæological Reports of General Cunningham.<sup>5</sup> There are also some notes of lesser interest on the antiquities of the Nalt, the Assia and the Mahávinayaka Hills of Cuttack by Babu Chandrasekhara Banerji,<sup>6</sup> supplemented afterwards, in 1875, by Mr J Beames, on the Altí Hills;<sup>7</sup> also some notice of the archæological remains at Shah-kidheri and the site of Taxila in the Punjab by Mr J G Delmerick,<sup>8</sup> and of three sets of copper land grants discovered in the Vizagapatam District, by the Rev T Foulkes<sup>9</sup> In 1871, there was an important report by Captain W L Samuells on the discovery of ruins of rock-cut temples of the

---

<sup>1</sup> J A S B, Vol XXXIX pp 280, 283, 291, 292 300, 302<sup>2</sup> *Ibid*, Vol XL pp 251, 256, 258 <sup>3</sup> *Ibid* Vol XLI, pp 102, 107, 109, 110, 112 <sup>4</sup> *Ibid*, Vol XLII, p 209, Vol XLIII p 280, Vol XLIV, p 275 <sup>5</sup> *Ibid*, Vol XXXIX, p 70 <sup>6</sup> *Ibid*, p 158 <sup>7</sup> *Ibid*, Vol XLIV, p 19 <sup>8</sup> *Ibid*, Vol XXXIX, p 89, <sup>9</sup> *Ibid*, p 153

ninth or tenth century at Harchoka on the Rewa and Chutiya-Nágpúr frontier<sup>1</sup> There were also some less important notes on the antiquities of Jájpur in Orissa by Babu Chandrasekhara Banurji;<sup>2</sup> and on three rather modern inscriptions, one of them in Hindi verse, found in Chutiya-Nágpúr, by Babu Rakhal Das Halda.<sup>3</sup> Mr J Beames also contributed notices of Buddhist ruins at Kopari in the Balasore District,<sup>4</sup> and in the following year, 1872, some more on the remains at Chhatiya near Katak.<sup>5</sup> In the same year the antiquities of the much-discussed and much-described home of Buddhism, Bihar, was once more treated very fully by Mr. A. M. Broadley.<sup>6</sup>

Hitherto the historic remains of ancient and mediæval India had almost entirely monopolised the attention of the Society, but now the so-called prehistoric remains also began to be drawn within the sphere of their research. One of the first moves in this direction had already been made in 1870 by Colonel Sir A. Phayre, who reported the discovery of a circle of tall, upright stones near Sung Butte in the district of Yusufzai in Afghanistan.<sup>7</sup> Col. E. T. Dalton now contributed, in 1873, a description of rude sepulchral stone monuments in Chutiya-Nágpúr and other places.<sup>8</sup> The subject was continued some years later, in a series of papers, by Mr. H. Rivett-Carnac, who described in 1877 the ancient sculpturings (cup-marks, circles, &c.) to be seen on rocks in Kumaon, similar to those found on monoliths and rocks in Europe;<sup>9</sup> in 1879, the prehistoric remains in Central India (Nágpúr, etc.);<sup>10</sup> and in 1883, stone implements from the N-W Provinces of India.<sup>11</sup>

---

<sup>1</sup> J A S B, Vol XL p 177      <sup>2</sup> *Ibid.*, p 151      <sup>3</sup> *Ibid.*, p 165      <sup>4</sup> *Ibid.*, p 217  
<sup>5</sup> *Ibid.*, Vol XLI p 7      <sup>6</sup> *Ibid.*, p 209      <sup>7</sup> *Ibid.*, Vol XXXIX p 15  
<sup>8</sup> *Ibid.*, Vol XLII p 112      <sup>9</sup> *Ibid.*, Vol XLVI, p 1      <sup>10</sup> *Ibid.*, Vol XLVIII, p 1  
<sup>11</sup> *Ibid.*, Vol LII, p 221

Mr W. King, also, noticed in 1877 a prehistoric burial-place with cruciform monoliths, near Mungapet in the Nizam's dominions <sup>1</sup>

In the volume of 1873, Babu Rájendralála Mitra published copper land grants of the Rathore pince Govinda Chandra of Kanauj of the twelfth century A D ;<sup>2</sup> and in the following year, 1874, two more inscriptions, one on stone, from the Pálm Báoli in the Dehli District,<sup>3</sup> of the thirteenth century, and another far more important one, on a copperplate, of the time of Chandragupta in the fourth century, discovered by General Cunningham at Indor near Anupshahar on the Ganges <sup>4</sup> Another copper land grant found near Chittagong, of the thirteenth century, was made known by Babu Prannáth Pandit <sup>5</sup> Dr Wise noticed some Muhammadan antiquities about Sanaigaon in Eastern Bengal,<sup>6</sup> and Colonel E T Dalton, a large Muhammadan picture, representing the conquest of Palaman in 1660 by Daud Khán, Aurangzib's General <sup>7</sup>

The temple ruins of Assam a subject which, though well worthy of research, had been neglected since 1855 was now taken up again by Major H H Godwin-Austen, who described the ruins at Dinápur,<sup>8</sup> and Mr J M Foster, who described those at Jayaságar <sup>9</sup> In 1875, Mr E. Vesey Westmacott noticed an inscribed pillar and other traces of Buddhism in Dinápur and Bagura <sup>10</sup> He also published a copper land grant of Lakhsman Sen found in a small tank at the former place <sup>11</sup> Mr F S Growse published some Bacchanalian sculptures which had been found in Mathurá in 1836, hitherto considered to be Grecian, but which he thought might be Buddhist or Brahmanic <sup>12</sup> He

<sup>1</sup> J A S B, Vol XLVI, p 179    <sup>2</sup> *Ibid*, Vol XLII p 314    <sup>3</sup> *Ibid*, Vol XLIII p 104    <sup>4</sup> *Ibid* p 363    <sup>5</sup> *Ibid* p 318    <sup>6</sup> *Ibid*, p 82    <sup>7</sup> *Ibid*, p 240    <sup>8</sup> *Ibid*, p 1    <sup>9</sup> *Ibid*, p 311    <sup>10</sup> *Ibid*, Vol XLIV, p 187    <sup>11</sup> *Ibid*, p 1    <sup>12</sup> *Ibid*, Vol XLV, p 212

afterwards, in 1878, 1879 and 1883, followed up his researches by exhaustive notes on the antiquities of Mathurá and Bulandshahar.<sup>1</sup> In the volume for 1877, Babu Chandiasekhara Banurji also noticed some of the antiquities met with in the Kaimur Range;<sup>2</sup> and Babu Rangalála Banerji made known an important copper land grant, found in the Record Office of Katak, of the Kalunga prince Yayáti during the reign of Siva Gupta,<sup>3</sup> while Babu Pratapa Chandias Ghosha published another copper land grant (on three plates) of the same early period, dug out in the Tributary State of Patna in the Sambalpur District.<sup>4</sup> In 1878, three copper land grants of the Chandel Rájás were brought to notice by Dr. Rájendralála Mitra and Mr. V. A. Smith.<sup>5</sup> The latter followed this up in 1879, in conjunction with Mr. F. C. Black, by descriptions of some Chandel antiquities at Khajráho and Mahoba, which had not been fully noticed by General Cunningham in his *Archæological Survey Reports*.<sup>6</sup> In 1880, Major Jarrett noticed a small Persian inscription found upon a stone lying near the ruins of a mosque on Lanka Island in the Walar Lake in Kashmir, of the time of Sultan Zayn-úl-A'ábidin;<sup>7</sup> and Mr. H. Rivett - Carnac contributed some account of so-called "spindle whorls" and votive seals found at Sankisa, Behar, and other Buddhist ruins in the North-Western Provinces of India.<sup>8</sup>

In the following year, 1881, General A. Cunningham commenced a valuable series of descriptions of ancient Persian relics in gold, silver, and copper, mostly belonging to a large treasure found in 1877, on the north bank of the

<sup>1</sup> J A S B Vol XLVII, p 97, Vol XLVIII, p 270, and Vol. LII, p 275

<sup>2</sup> *Ibid*, Vol XLVI, p 16

<sup>3</sup> *Ibid*, p 149

<sup>4</sup> *Ibid*, p 173

<sup>5</sup> *Ibid*,

Vol XLVII, pp 73, 80

<sup>6</sup> *Ibid*, Vol XLVIII, p 285

<sup>7</sup> *Ibid*, Vol XLIX, p 16

<sup>8</sup> *Ibid*, p 127

OLUS, near the town of 'Tahlt-i-Kuwat.<sup>1</sup> He continued it in two memoirs in the volume for 1883.<sup>2</sup> In 1882, Mr P. N. Bose reported the discovery by him of some earthen pots found in an ancient well at Mahesvara, similar to those found in the ancient town of Behat.<sup>3</sup> Dr. Rajendralala Mitra followed, in 1883, with a notice of a stone inscription of the fifteenth century found in the old Fort of Deogarh in the Lalitpur District,<sup>4</sup> and with an exhaustive description of the temples of Deogarh in the *Sinthal Pergunnahs*.<sup>5</sup> The last year of the Society's century closes with the account, by Mr R. Roskell Bayne, of the discovery of the very modern, though in some respects not the least interesting, remains of portions of the Old Fort William in Calcutta, as it existed towards the end of the last century.<sup>6</sup>

---

<sup>1</sup> J A S B, Vol L p 151    <sup>2</sup> *Ibid*, Vol LII pp 64, and 258    <sup>3</sup> *Ibid.*, Vol LI, p 226    <sup>4</sup> *Ibid*, Vol LII p 67    <sup>5</sup> *Ibid*, p 161    <sup>6</sup> *Ibid*, p 105





pally from duplicates presented by the Government of Bengal, from the late Colonel Mackenzie's collection. From these, aided by a few others, Professor H. H. Wilson prepared an account of select Hindu coins in the Society's Cabinet in 1831<sup>1</sup>. The author was assisted in this undertaking by Mr J Prinsep, and the zealous interest which the latter thus learned to take in the subject of Indian numismatics did not cease with the occasion, and the continuance of his labours not only, but the stimulation of a similar interest in other parts of India, may be considered as the most important consequence of the publication of the paper in question<sup>2</sup>. The first fruits of Mr J Prinsep's new interest in coins was a description, in 1832, of the "Ancient Roman Coins in the Cabinet of the Asiatic Society,"<sup>3</sup> and in 1833, of the Greek coins in the same Cabinet<sup>4</sup>.

Not long before, in 1830, General Ventura had excavated the celebrated Manikyála Tope, in which he had found a number of unknown curious coins, now known as Indo-Scythian. In the beginning of 1832, Lieutenant Burnes, on his way to Bokhara, visited Manikyála and inspected General Ventura's operations. The Bactrian and Indo-Scythian coins which he found on that occasion were described by Mr. J Prinsep in 1833, together with some others with which he had been supplied,<sup>5</sup> and it may be noted that on one of the former the now well-known name of Kanerkes was for the first time distinctly legible. To his description Mr J Prinsep added some remarks on the historical bearings of the coins, and some speculations as to the appropriations of such as were least known.

<sup>1</sup> *As. Res.*, Vol. XVII, p. 560<sup>2</sup> See *Ariana Antiqua*, p. 8<sup>3</sup> *J. A. S. B.*,

Vol. I, p. 392

<sup>4</sup> *Ibid.*, Vol. II, p. 27<sup>5</sup> *Ibid.*, Vol. III, p. 310

He little anticipated at that time the extent to which materials were about to pour in upon him, or the important conclusions which he was consequently enabled to establish or suggest. Only two months later, in the same year, he was enabled to publish a description and engravings of eighteen coins, Bactrian and Hindu, chiefly from the collection of Dr. Swiney, amongst which were now made known, for the first time, some of the drachmae, no doubt spoken of by Arrian, those of Menander and Apollodotus. Some other coins, since known to belong to Indo-Scythic and Hindu princes, were also now, for the first time, delineated and described.<sup>1</sup>

An accession of unexpected extent was soon after, in 1834, made through Mr. Masson's explorations of the ancient topes in Afghanistan, especially at a place named Beghram, of which an account was communicated to the public through the *Journal*.<sup>2</sup> Mr. Masson continued his researches about Beghram during the four succeeding years, and collected in this interval above thirty thousand coins. A further account of these operations is given in the *Journal* for 1836.<sup>3</sup> Among the coins discovered by him are not only new ones of Greek princes already known, but also those of several whose names are not mentioned in history, as Antialkides, Lysias, Agathocles, Archebias, Pantaleon, and Hermæus. He also found the coins of the king whose titles only are specified as the Great King of Kings, the Preserver, and of others whose names, although assuming a Greek form, indisputably denote barbaric or Indo-Scythic princes—Undopheires, Azes, Azilises, Kadphises, and Kanerkes. The first great step in the series of

---

<sup>1</sup> J A S B, Vol II, pp 37, 405 See *Ariana Antiqua*, pp 9 10 \* J A S B, Vol III p 153 See *Ariana Antiqua*, p 10 <sup>2</sup> J A S B, Vol V, p 1 See *Ariana Antiqua* p 11

Bactrian numismatic discovery was thus accomplished, and the great object of later investigations became only to complete and extend the structure, of which such broad foundations had been laid <sup>1</sup>

In consequence of a remark made by Mr J. Prinsep in the previous volume of the Journal,<sup>2</sup> intimating the hope that a more precise account of General Ventura's discoveries might be published in its pages, which remark was communicated to that officer, he immediately, with the most disinterested liberality, placed his collection at the disposal of Mr. Prinsep. The latter, in the Journal for 1834, devoted two memoirs to the description of the General's collection <sup>3</sup> The coins were Sassanian and Indo-Scythic. The former added to then usual characteristic types and legends the peculiarity of a Nágari inscription, which, though then unintelligible, was afterwards, in 1838, deciphered by Mr. Prinsep in its entirety as referring to Persian princes, though of unknown and uncertain appellations <sup>4</sup> The Indo-Scythic coins were of the Kanerkes type, and, by comparison with some of the same kind sent by others, the legends on them, written in a barbarised form of Greek, were completely read by Mr Prinsep.<sup>5</sup> In the same Journal the latter also described some coins found by Captain (afterwards General) Court in another tope at Manikyála, which he had opened himself,<sup>6</sup> a description which, in one point, was corrected by Lieutenant (now Major-General) A. Cunningham.<sup>7</sup>

<sup>1</sup> See *Ariana Antiqua*, p 12    <sup>2</sup> J A S B, Vol. II p 308    <sup>3</sup> *Ibid*, Vol III, pp 313, 436    See *Ariana Antiqua*, p 13    <sup>4</sup> J A S B, Vol VII p 418    <sup>5</sup> See *Ariana Antiqua*, p 14    <sup>6</sup> J A S B, Vol. III p 562    See also Captain Court's *Memoir*, *ibid*, p 556    <sup>7</sup> *Ibid*, p 635    See, however, *Journal des Savants*, February, 1836, p 71, and *Ariana Antiqua*, p 15

The interest excited by the coins and relics of the Panjab and the districts beyond the Indus, stimulated persons less favourably circumstanced than the officers of Ranjit Singh to look around them for such remains of past times as India Proper might afford; and the search was not in vain. A curious discovery was made in 1833, by Captain Cautley, of the site of an ancient town near Behat in the Doab, which was seventeen feet below the surface of the soil.<sup>1</sup> It was laid bare in clearing out the bed of a canal, and, amongst other relics, a number of coins were found.<sup>2</sup> These were engraved and described by Mr. Prinsep in the *Journal* for 1834; some were rude specimens of Indo-Scythic coins, but others formed a new series distinguished by peculiar types and ancient Sanskrit characters.<sup>3</sup> Their publication soon produced others of a similar description. Two procured at Clutore were sent by Major Stacy; others were obtained by Lieutenant Conolly at Kanaug, and several were comprised in the Cabinet of Dr Swiney. These were also described and delineated by Mr. Prinsep, who pointed out that the inscriptions on them were in the ancient Indian Pali alphabet.<sup>4</sup> Three years later, in 1837, after having discovered the key to that alphabet, he deciphered the inscriptions, when sufficiently distinct. From other specimens, since found in better preservation, it is now known that they belonged to ancient Hindu princes (Mitrās, Dattas, Devas, Kunindas, Yaudheyānas), who, as shown by the symbols on the coins, professed the Buddhist faith, and who must have belonged to a period when Buddhism prevailed in Upper Hindustan.<sup>5</sup>

---

<sup>1</sup> J. A. S. B., Vol. III, p. 43. See *Ariana Antiqua*, p. 16.      <sup>2</sup> J. A. S. B., p. 221.  
<sup>3</sup> *Ibid.*, p. 227.      <sup>4</sup> *Ibid.*, pp. 431, 433. See *Ariana Antiqua*, p. 16.      <sup>5</sup> See  
J. A. S. B., Vol. VI, p. 463, Vol. VII, pp. 1047, 1052.





assuming Buddhist symbols, they were probably struck in the monasteries of the period. Those which offer imitations of the Indo-Scythic coins, of course followed the establishment of the princes of that nation. In a better style the type of the coins of these princes was also repeated on those of the Gupta princes of Kanauj, and the latter again became the prototypes of the later coins of the various Rajput dynasties down to the time of the Muhammadan conquest <sup>1</sup>

While prosecuting his comparative researches in Indian numismatics, Mr Prinsep did not neglect his examination of the Bactrian coins with which he had been so abundantly supplied by Mr Masson and others. In 1836 he published two memoirs on new varieties of these coins which he had discovered, and from which he brought to light the names of several new princes, among them Archebias, Amyntas, and the Queen Agathokleia <sup>2</sup>. Another and no less curious series of coins, however, which were being found in Suráshtra, and of which a few detached specimens only had been before published, also attracted Mr. Prinsep's attention at this time (1834). He noticed that they were imitations of Bactrian coins, <sup>3</sup> but the legends on them, which were to him at first unintelligible, he only succeeded in deciphering two years later, in 1836, as written in an ancient form of Nágarí and referring to a dynasty of rulers which, as shown afterwards, bore the title of Kshatriapa (Satrap), and of which eleven descents could be made out from the coins. At the same time the first discovery was made, which was amply confirmed afterwards, that these coins were dated in an ancient form of the Nágarí numerals <sup>4</sup>

---

<sup>1</sup> See *Ariana Antiqua*, pp 20, 21      <sup>2</sup> J. A. S. B., Vol V, pp 348, 720      <sup>3</sup> *Ibid*, Vol. IV, p 684      <sup>4</sup> *Ibid*, Vol VI, p 377, Vol VII, pp 347-348



On the departure of Mr. Prinsep from India in November 1838, his researches into the Bactrian and Indo-Scythian coins were zealously continued by Captain (now Major-General) Alexander Cunningham, who all along had been the trusty coadjutor of Mr. Prinsep in his investigations.<sup>1</sup> His results Captain Cunningham communicated to the Society in 1840, 1842 and 1845, in three notices of some new Bactrian coins. In these he had the satisfaction of being able to add no less than nine new names to the already long list of Bactrian sovereigns; of which seven were pure Greek, and the other two genuine Parthian.<sup>2</sup> In a fourth notice on the same subject, in 1840, he described a number of Bactrian and Sassanian coins found by Captain Hay at Bamiran.<sup>3</sup> The extensive demand for Bactrian coins, engendered by the eager interest widely taken in them consequent upon the researches of the Numismatists, led to the natural, though undesirable, result of attempts, made chiefly by native workmen, to supply it by means of forgeries. The experienced eye of Captain A. Cunningham, however, at once discovered them; and in two notices on counterfeit Bactrian and Indo-Scythian coins, he supplied the unwary collector with the much needed information.<sup>4</sup>

These two classes of coins, together with the Surashtrian and Sassanian, had hitherto concentrated on themselves the almost undivided attention of those engaged in Indian numismatic research. This was natural; for being the most ancient as well as the most obscure, they naturally offered the widest and most promising field for discoveries. But the harvest now began to grow exhausted, and the eyes

---

<sup>1</sup> J A S B, Vol V, p 652      <sup>2</sup> *Ibid*, Vol IX, Pt I, pp 867, 1008, and Vol XI, Pt I, p 130, Vol XIV, Pt I, p 430      <sup>3</sup> *Ibid*, Vol IX, Pt I, pp 63, 70, 531  
<sup>4</sup> *Ibid*, p 393, Pt II, p 1217

of the inquisitive began to turn in other directions. Still there were gleanings to be made, as fresh coins of those classes were constantly being found in various places. Thus Mr. Landlay noticed, in 1848, eight Indo-Sevthian gold coins found at Kussarava in the Mungr District,<sup>1</sup> and Captain (now General) James Abbott, in 1853, a few Bactrian and Indo-Sevthian coins, got from their old well-known find-place, the neighbourhood of Manikyálá,<sup>2</sup> while Mr E Thomas, in 1851, contributed a description of a curious new coin of the Sassanian type.<sup>3</sup> The most important later finds, however, were a silver coin of a new Bactrian king, Plato the Illustrious, reported by Mr J Delmerick in 1872,<sup>4</sup> and a deposit of twenty Indo-Sevthian and Roman gold coins, excavated by Mr W Simpson from the Ahu Posh Tope at Jalálábád and described by the writer of this Review in the 'Proceedings' for 1879.<sup>5</sup> A small hoard of ten Surashtrian coins, found near Chhindwára in 1882 by Mr J W Tawney, may also be noticed.<sup>6</sup>

About this time an altogether different field, that of the Muhammadan coins of India, comes, for the first time, prominently into view. Some indications of this field had already been given by Mr Prinsep<sup>7</sup> and the Hon'ble H T. Colebrooke, the latter of whom described, in 1841, "a quantity of coins of the Musalman kings of Bengal found at Howrah," and presented to the Society by Mr. H R Torrens.<sup>8</sup> The latter species of coins, though now not uncommon, were in those days of such rarity that it was far easier to procure the coins of Alexander or his

---

<sup>1</sup> J A S B, Vol XVII Part I, p 454    <sup>2</sup> *Ibid*, Vol XXII, p 573    See also *ibid*, Vol XX, p 137    <sup>3</sup> *Ibid*, Vol XX, p 525    <sup>4</sup> Proceedings for 1872, pp 34, 174    <sup>5</sup> *Ibid*, for 1879, pp 77, 122, 210    <sup>6</sup> *Ibid*, for 1882, p 114, see also p 41  
<sup>7</sup> J A S B, Vol IV, pp 679, 680    <sup>8</sup> *Ibid*, Vol. X, Part I, p 108

successors in Bactria, than those of the Sultans of Bengal.<sup>1</sup> The Bengal coins of the Society's Cabinet, together with others which were in his own possession, received a careful examination at the hands of Mr. Laidlay, the result of which he communicated in the *Journal* for 1846, and by which he succeeded in throwing considerable light on the history of the independent kings of Bengal, until then very little known. The series of these kings he succeeded in tracing by the help of the coins, with tolerable continuity, from the first independent Sultan, Ilyás Sháh, down to the last Mahmúd Sháh, with whom the independence of the kingdom of Bengal was extinguished.<sup>2</sup> After Mr. Laidlay's first attempt, the subject of the Bengal coins remained entirely unnoticed till, upwards of twenty years afterwards, in 1867, when, as will be shown below, it was taken up in right earnest by Mr E. Thomas and Mr. H Blochmann, owing to the happy discovery of an extraordinary large hoard of Bengal coins.

In the meanwhile, investigations of no less interest and with equally important results were carried on in other, as yet almost, if not quite, untrodden fields of numismatic research. Thus, in 1846, the first information and delineation of the comparatively modern coins of Arakan of the seventeenth and eighteenth centuries was supplied by Captain (now General Sir) A. P. Phayre;<sup>3</sup> and at the same time it was supplemented by Lieutenant Thomas Latter by a description and delineation of another species of Arakan coins, bearing ancient Nágari characters which he did not recognize,<sup>4</sup> but which were afterwards, in 1872, shown by Captain (now Colonel) G. E. Fryer to be coins of an ancient

---

<sup>1</sup> J A S B, Vol XV p 324

<sup>2</sup> *Ibid*, p 323

<sup>3</sup> *Ibid*, p 232

<sup>4</sup> *Ibid*,

Arakanese dynasty of the eighth and ninth centuries, A. D. ;<sup>1</sup> a conclusion which, in 1878 and 1880, was confirmed by Dr. Rájendralála Mitra from a new find of similar coins.<sup>2</sup>

In 1852, Mr. E. Thomas, who had already successfully investigated the coins of the kings of Ghazni from the specimens in Mr. Masson's large collection,<sup>3</sup> contributed another no less valuable memoir on that subject in the pages of the Society's Journal, based on the Ghazni coins in Colonel Stacy's Cabinet. It described coins belonging to six sovereigns, including Subaktigin, Ismael, Mahmúd, Mas'aúd, Madiúd, and Ibráhím; it incidentally also noticed a curious coin of the Rájpút Bull and Horseman type inscribed with 'Mas'aúd,' the name of one of these sovereigns.<sup>4</sup> In connection with this subject it may be mentioned that, in the year before, 1851, Mr. E. Thomas had published descriptions and delineations of eight specimens of Central Asiatic Kufic coinages of various dates and kingdoms.<sup>5</sup> A few years later, in 1855, he contributed a valuable memoir on a very different, as well as much more ancient, and for Indian history much more important, class of coins, those known by the name of the Gupta dynasty, of which two principal species had been met with, one in gold, the other in silver. These coins had already been noticed by Mr. J. Prinsep and correctly appropriated by him, though he was unable to read the legends on the second species of them.<sup>6</sup> Since his time coins of this class were repeatedly found in various places, and occasionally noticed in the Journal. Thus, in 1852, Major M.

<sup>1</sup> J. A. S. B., Vol. XLI, Part I, p. 201.    <sup>2</sup> Proceedings for 1878, pp. 102, 103,

and for 1880, pp. 51, 54.    <sup>3</sup> See Journal of the Royal Asiatic Society for 1848.

<sup>4</sup> J. A. S. B., Vol. XXI, p. 115. See also a later notice by Mr. C. J. Rodgers, in Proceedings for 1879, p. 78, and for 1881, p. 4.    <sup>5</sup> J. A. S. B., Vol. XX, p. 537.

<sup>6</sup> *Ibid.*, Vol. III, p. 230, and Vol. IV, p. 687.

Kittoe brought to notice a large hoard found at Benares, of which some were described and figured by Mr. (now Sir) E. C. Bayley;<sup>1</sup> and in the same year, Dr. Rájendralála Mitra described and delineated three curious coins found at Muhammadpur in the Jessore District, among which, however, only one is probably to be classed as a Gupta coin, while another is now known to belong to the Susanka series, and the third is a South Indian coin.<sup>2</sup> In the memoir of 1855, already alluded to, Mr. E. Thomas, who had the advantage of examining all these coins together with others in Colonel Stacy's and his own possession, successfully brought together and systematised all that had hitherto been ascertained regarding the gold and silver currency of the Guptas, adding at the same time much new information, especially with regard to their silver coinage.<sup>3</sup> Another class of coins, more ancient and hardly less important than those of the Guptas, but having their affinities rather with the Indo-Scythian coins, was brought to notice about the same time, in the Journal of 1854, by Major A. Cunningham. These are the so-called coins of the Indian Buddhist Satraps, of Mahágala, Jivamsa, and Rájabala, the peculiarity of which is that they exhibit for the first time pure Hindu names written in Greek characters. They are of the highest interest and value for the elucidation of Indian history just before the Christian era, as they afford a sure guide to the religious and political state of India at that particular period.<sup>4</sup>

At this time a long pause occurred; during the next ten years, from 1855 to 1864, the Journal contains not

<sup>1</sup> J. A. S. B., Vol. XXI, pp. 390, 392      <sup>2</sup> *Ibid.*, Vol. XXI, p. 401      <sup>3</sup> *Ibid.*, Vol. XXIV, p. 483      For some later notices of finds of Gupta coins of well known types, see Proceedings for 1878, p. 191, for 1879, p. 174, for 1881, p. 39, for 1882, p. 112      <sup>4</sup> J. A. S. B., Vol. XXIII, p. 679

a single numismatic contribution. But though there was no outward manifestation, the work of enquiring into the coinages of India was carried on with undiminished zeal, in the study and in the field. The first fruit of this laborious though quiet research was the publication by Mr. E. Thomas, in the *Journal* for 1864 and 1865, of three learned memoirs on "ancient Indian weights."<sup>1</sup> The substance of these memoirs had been originally prepared by him for insertion in the *Numismatic Chronicle*, but as a large proportion of their contents proved, in the progress of the enquiry, to relate to questions beyond the legitimate scope of that *Journal*, they were, in a revised and amplified form, published in the *Society's Transactions*. The attention of archæologists had, just then, been attracted to the weights and measures of ancient nations, by the elaborate work of M. Queipo, and the less voluminous but more directly interesting article of Mr. R. S. Poole (in *Smith's Dictionary of the Bible*) on the Babylonian and other early metrologies. Mr. E. Thomas's memoirs on the system of the ancient Indian weights is not the least valuable contribution to this enquiry. For "that system, in its local development, though necessarily possessing a minor claim upon the consideration of the European world, may well maintain a leading position in the general investigation, on the ground of its primitive and independent organization, and the very ancient date at which its terms were embodied and defined in writing; while to numismatists it offers the exceptional interest of possessing extant equivalents of the specified weights given in the archaic documentary record which Sanskrit literature has preserved in the text of the original Code of the Hindus."

---

<sup>1</sup> *J. A. S. B.*, Vol. XXXIII, p. 251, Vol. XXXIV, pp. 14, 51

In the course of his memoirs, the author proves the very early date of the employment of coined money in India, the earliest representatives of which were the so-called "punch-coins," already referred to in connection with the Behat discovery. These were "flat pieces of metal, some round, some square or oblong, adjusted with considerable accuracy to a fixed weight and usually of an uniform purity, seemingly verified and stamped anew with distinctive symbols by succeeding generations, which clearly represented an effective currency long before the ultimate date of the engrossment of the Laws of Manu."<sup>1</sup> These pieces may still be found all over Northern India in unusual numbers, though mostly in silver, while their more perishable and less esteemed copper equivalents are of very rare occurrence. Their appearance may be judged from the delineations on the two plates which accompany Mr Thomas's memoirs.<sup>2</sup> At a later date the ancient Indian coinage shows distinct traces of Greek influence; notably in the case of the *Surashtrian* and *Gupta* coins.

Another class of coins of this type, though preserving more of a distinctively Indian character, was brought to notice by Major-General A. Cunningham, at the same time that Mr. Thomas's memoir on the earliest currency appeared. In the *Journal* for 1865, he described and delineated coins, mostly of great rarity, of three different dynasties which anciently held sway in *Naiwar* and *Gwalior*, and the earliest of which, that of the so-called "nine *Nāgas*," was contemporary with the *Guptas*, in the second century of the Christian era.<sup>3</sup> To the same type belong the coins of the *Sunga* or *Mitra* dynasty, which reigned in north *Panchala*, the modern *Rohilkhand*, and, like the *Nāgas*,

<sup>1</sup> *J A S B*, Vol. XXXIV, p 15<sup>2</sup> *Ibid*, Plates 17 and 18.<sup>3</sup> *Ibid*, p 115

was contemporary with the great Guptas. Colonel Stacy's specimens of their coins, as well as of those of the Nāgas, had been already noticed by Mr. J. Prinsep,<sup>1</sup> as long ago as 1837, since when little or nothing had been added to their knowledge. But, in 1879, Mr. H. Rivett-Carnac was so fortunate as to procure a considerable number and variety of them from the ruined site of the ancient town of Abichhatra. They were placed by him in the hands of Mr. A. C. Cailleye, who published a careful description and delineation of them in the *Journal* for 1880.<sup>2</sup> Later, in the same volume, Mr. Rivett-Carnac himself gave a large number of additional delineations of Mitra coins and others similar to them.<sup>3</sup> A few years previously, in 1873, the Hon'ble E. C. Bayley had published two other coins of the same class, found on the site of the ancient city of Kausambhī,<sup>4</sup> and in 1875 Dr. Rājendralāla Mitra contributed some further elucidation of another well-known and often described kind of coin of the same type, that of Kunanda, of which a new specimen had been found at Karnal.<sup>5</sup> Two curious gold coins, of unknown attribution, but probably belonging to the same class, were described and delineated by the writer of this Review in 1881 and 1882.<sup>6</sup>

These were but gleanings on the field of the earlier Hindu coinages of India — a field which now, after the long continued and searching labours of General Cunningham and his co-workers, appears rapidly to become exhausted. But there was still a field on which,

<sup>1</sup> See *J. A. S. B.* Vol. VI, pp. 297, 298. <sup>2</sup> *Ibid.*, Vol. XLIX, p. 21. <sup>3</sup> *Ibid.*, Vol. XLIX, pp. 87, 138. See also, for a later find, *Proceedings* for 1881, p. 64. <sup>4</sup> *J. A. S. B.*, Vol. XLII, pp. 109, 191. <sup>5</sup> *Ibid.*, Vol. XLIV, p. 82. See also Mr. Thomas's *Description and Delineation* in Vol. XXXIV, p. 65. <sup>6</sup> *Proceedings* for 1881, pp. 19, 138, and for 1882, pp. 91, 194.



though much had been already done, there remained yet very much more to be done by those of a later day, who took an interest in the numismatics of India. This field comprised the varied and, some of them, extensive classes of Muhammadan coins—the imperial coinage of Dehli as well as the provincial ones of Bengal, Gujarât, Malwa, and others. It included also the later Hindu coins of Kashmir, Kangia, &c., contemporary with, and subsequent to, the Muhammadan conquest. Here again, after a preliminary publication, in 1864, of a catalogue and delineations of Muhammadan coins current in the bazars of the Gujarat District in 1859, the experienced numismatist, Mr. E. Thomas, some of whose valuable contributions on a similar subject have been already noticed, took the lead. It was a remarkable discovery which afforded the occasion. In 1863, an extraordinarily large hoard of coins, numbering in all no less than 13,500 pieces of silver, was found in Cooch Bihar, in Northern Bengal. The autumnal fall of a river bank, not far removed from the traditional capital of Kanteswar Râja, a king of mark in provincial annals, disclosed to modern eyes the hidden treasure of some credulous mortal who, in olden time, entrusted his wealth to the keeping of an alluvial soil, carefully stored and secured in brass vessels specially constructed for the purpose, but destined to contribute undesignedly to an alien inheritance, and a disentanglement at a period much posterior to that contemplated by its depositor. This accumulation, so singular in its numerical amount, is not less remarkable on account of its component elements, all the coins being, with a very few exceptions of imperial coins of Delhi, the unmixed produce of the provincial mints of Bengal, and embracing the records of no more than ten kings, ten mint cities, and one hundred and seven years up to the end of the fourteenth

century. From this great store careful selections were made by Dr. Rájendralála Mitra for the Calcutta Mint, the Asiatic Society and Colonel C. S. Guthrie,<sup>1</sup> and these selections afforded to Mr. Thomas the leading materials for his invaluable monograph on "The Initial Coinage of Bengal," which was first published in the *Journal of the Royal Asiatic Society of Great Britain and Ireland*,<sup>2</sup> and afterwards in 1867 reprinted in the pages of the *Journal of this Society*.<sup>3</sup> After an introductory exposition of the Muhammadan system of coinage, the monograph proceeds to describe and delineate the coins of ten Bengal sovereigns, beginning with Ruknuddín Kai Kaus, and ending with Ghiyásuddín 'Azam Sháh, noticing at the same time the imperial coins of Násuuddín Mahmúd Sháh and of Jalálatuddín Riziya.

A careful examination of these coins enabled the author to throw considerable light on the hitherto little or obscurely known history of the early Muhammadan occupation of Bengal, extending over a century and a half. There still, however, remained much to be cleared up, especially regarding the course of events during those frequent rebellions to which the Governors of Bengal were tempted by the remoteness of their province from the centre of the empire. One of these residual obscurities, relating to the rebellion of the Bengal Governor, Ghiyásuddín 'Iwaz, Mr. Thomas himself was able to clear up some years later, owing to the discovery, near the fort of Bihai, of thirty-seven coins, among which were some of Ghiyásuddín, and others of the contemporary Delhi Emperor, Altamsh. Regarding these Mr. Thomas contributed to the *Journal* of 1873 a supplementary memoir

---

<sup>1</sup> J A S B Vol XXXIII p 480    <sup>2</sup> See *Journal, R A S*, Vol II, p 1, (N S)    <sup>3</sup> J A S B, Vol XXXVI, p 1

Fírúz Sháh Zafar;<sup>1</sup> in 1873, he made known a unique gold coin of the usuper, Násiruddín Khusiáu;<sup>2</sup> in 1876, the Rev. Mr. Carleton published an unique gold coin of Násiruddín Mahmúd Sháh;<sup>3</sup> in 1878, Mr. H. Blochman, an unique gold coin of Jalal-uddín Fírúz Sháh II;<sup>4</sup> in 1881, Mr. J. G. Delmerick, an unique silver coin of Shamsuddín Kaimurs;<sup>5</sup> and in 1880, Dr. C. R. Stulpnagel added a few new coins struck in the joint names of Ghiyásuddín and Muizzuddín bin Sám.<sup>6</sup> Mr. J. G. Delmerick, the same whose contribution of two supplementary Bengal coins has already been noted, also contributed descriptions and delineations of some new and rare Pathans in the Journals for 1874, 1875 and 1876.<sup>7</sup> In his second and third papers also occur the first more detailed notices, ever published in the Journal, of some of the Muhammadan provincial coinages, those of Jaunpur,<sup>8</sup> Malwa, Kulbarga, and Kashmir, as well as of coins of the Mogul Empire.<sup>9</sup> The researches into some of these provincial coins were pursued more especially by Mr. C. J. Rodgers, who has been just mentioned in connection with the Pathan coins. The Journals for 1879, 1880, 1881 and 1883 contain several valuable memoirs from him, on the coins of Akbar,<sup>10</sup> those of the Sultans and Mahárájas of Kashmir<sup>11</sup> and Kángra,<sup>12</sup> and those of the Sikhs.<sup>13</sup> The subject of the provincial coins of South India was, about the same time, taken up by Dr. G. Bidie, who contributed to

<sup>1</sup> J A S B, Vol XL, p 160    <sup>2</sup> *Ibid*, Vol XLII, p 311    <sup>3</sup> Proceedings for 1876, p 91    <sup>4</sup> *Ibid*, for 1878, p 64    <sup>5</sup> *Ibid*, for 1881, p 157    <sup>6</sup> J A S B, Vol. XLIX, p 29    <sup>7</sup> *Ibid*, Vol. XLIII, p 97, Vol XLIV, p 126, Vol XLV, p 291    <sup>8</sup> *Ibid*, Vol XLIV, p 126    See also Proceedings for 1881, pp 40, 41    <sup>9</sup> J A S B, Vol XLV, p 292    See also Proceedings for 1869, p 266    <sup>10</sup> J A S B, Vol XLIX, p 213, Vol LII p 97.    <sup>11</sup> *Ibid*, Vol XLVIII, pp 277, 232    <sup>12</sup> *Ibid*, Vol XLIX, p 10    <sup>13</sup> *Ibid*, Vol L, p 71

the Journal for 1883 a short monograph on the so-called Pagoda or Varáha coins <sup>1</sup>

The last two contributions in the pages of the Society's Journal refer to countries beyond the confines of India proper. These are a memoir by Major W F Prideaux on the "Coins of Charibael, King of the Homenites and Sabaeans,"<sup>2</sup> and two others by Major-General A Cunningham on "Relics of Ancient Persia in Gold, Silver, and Copper," in which, among other relics, he describes and delineates a large number of coins of Persian kings and satraps and of Greek kings and cities, discovered in 1877 on the north bank of the Oxus. Thus, with the close of the century, the researches in Indian numismatics, as represented in the Society's Journal, after having gradually brought the whole extent of India proper within their purview, returned once more to the earliest field of their enquiry beyond the Western frontiers of modern India

---

<sup>1</sup> J A S B, Vol LII, p 33.    <sup>2</sup> *Ibid*, Vol L, pp 95, 151, and Vol LII, p 64

## CHAPTER III.

## ANCIENT INDIAN ALPHABETS

[Indian Pali characters the Kutila, the Gupta, the Asoka — Arian Pali characters]

THE most interesting and important period of the Society's activity with regard to the reading and translation of Ancient Inscriptions lies between the years 1834 and 1839, and is mainly connected with the name of Mr. James Prinsep, the Society's secretary at that time. Within the short space of those few years, and through the labours, in the main, of *one* man, those great discoveries were made which form the foundation of our knowledge of the ancient art of writing, language, and history of India.

The modern Devanāgarī characters are now known to have passed, roughly speaking, through three previous stages of development,—the Kutila, the Gupta, and the Asoka. The last two are named, respectively, after the Gupta kings (between the 2nd and 4th centuries, A.D.), and king Asoka (in the 3rd century, B.C.); the first name is descriptive ('curved'), and was first noticed by Mr. J. Prinsep in an inscription from the Bareilly District<sup>1</sup>. The characters named Kutila very closely resemble the modern Devanāgarī, and inscriptions written in them offered no very great

---

<sup>1</sup> J A S B, Vol VI, p 779 (verse 36).

difficulty to the early decipherers. As early as 1785, Charles Wilkins published a transcript and translation of the Kutila inscription on the well-known Pillar at Buddal. In a letter dated 14th July, 1785, he thus refers to it: "I have lately been so fortunate as to decipher the character, and I have the honour to lay before the Society a transcript of the original in the modern writing, and a translation, and at the same time to exhibit the two impressions I took from the stone itself"<sup>1</sup> About the same time Pandit Radha Kanta Sarma communicated a translation of the Kutila inscription of Visala Deva on the famous Iron Pillar in Delhi,<sup>2</sup> which, about 1801, was retranslated and revised by Mr. Henry Colebrooke<sup>3</sup>

The Gupta characters, the general appearance of which differs not inconsiderably both from the Kutila and the modern Nāgarī, offered a much more serious difficulty. Yet about the same time the ingenuity of Mr. Charles Wilkins succeeded also in overcoming the difficulties of these peculiar characters. In the years 1785-1789, he deciphered and published readings and translations of three of the now well-known short inscriptions of the Varma Kings in the Nāgarjūni caves near Buddha-Gaya. In a letter to the secretary, dated 17th March 1785, he says "Having been so fortunate as to make out the whole of the very curious inscription you were so obliging as to lend me, I herewith return it, accompanied by an exact copy, in a reduced size, interlined with each corresponding letter in the modern Devanāgarī character, and also a copy of my translation, which is as literal as the idioms would admit of to be. The character is, undoubtedly, the most ancient of any that have hitherto come under my inspection. It is

<sup>1</sup> *As Res*, Vol I, p 131

<sup>2</sup> *Ibid*, p 379

<sup>3</sup> *Ibid*, Vol. VII, p 173



ously mismanaged, that not a single word could be made out."<sup>1</sup> Next, though Mr. Wilkins's successful decipherment had furnished a key to the reading of the Gupta characters, it required yet much careful handling of it before it would unlock all the mysteries of that system of writing. Referring to the Gupta inscription on the Pillar of Allahabad, of which he had taken a copy for the Society, Lieutenant P. S. Burt writes in 1834: "On examining all the eighteen volumes of the *Asiatic Researches*, I am happy to say I have found, or at least partly found, a key to the character No. 27 in the transcript and interpretation of an ancient inscription at Gaya by Dr. Wilkins."<sup>2</sup> This will evidently serve as a guide by which nearly half of the letters can be made out."<sup>3</sup> What was still wanting, however, was now soon supplied by the joint labours of Captain A. Trevor, Dr. W. H. Mill, and Mr. James Prinsep, who successively and successfully examined and translated some of the most celebrated Gupta inscriptions. Thus, in 1834, Captain Trevor gave a partial translation of the Gupta inscription on the Allahabad Pillar. Dr. Mill in the same year completed it, and, in 1837, added to it a translation of its companion inscription on the Bhitari Pillar.<sup>4</sup> Mr. James Prinsep, in 1837 and 1838, further added a translation of the inscriptions on the pillars at Delhi,<sup>5</sup> Kuhaun,<sup>6</sup> (Gorakhpur District), Eran (in Bhopal),<sup>7</sup> on the tops of Sanchi<sup>8</sup> and Amravati,<sup>9</sup> and on the rock of Junagarh.<sup>10</sup> To the names of these three pioneers should be added

<sup>1</sup> *J. A. S. B.* Vol. VII, p. 629.      <sup>2</sup> This is the term used at that time to designate what are now commonly called the Gupta characters.      <sup>3</sup> *As. Res.*, Vol. I, p. 279.      <sup>4</sup> *J. A. S. B.*, Vol. III, p. 111.      <sup>5</sup> *Ibid.* p. 118.      <sup>6</sup> *Ibid.* pp. 257ff., and Vol. VI, pp. 1ff.      <sup>7</sup> *Ibid.* Vol. VII, pp. 629ff.      <sup>8</sup> *Ibid.* pp. 56ff.      <sup>9</sup> *Ibid.* pp. 633ff.      <sup>10</sup> *Ibid.* Vol. VI, pp. 155ff.      <sup>11</sup> *Ibid.* pp. 218ff.      <sup>12</sup> *Ibid.*, Vol. VII, pp. 357ff.





Prinsep, who in 1831 first suggested the identification, himself pointed out two of the difficulties of it, which lay in the two facts that the names of the Gupta dynasty in the inscription did not accord with those of the Maurya dynasty, and that the capitals of the two dynasties were different, *viz.* Kanauj and Patna respectively.<sup>1</sup> Dr Mill strongly supported these objections, adding to them two more, based on the difference of race and religious profession of the two dynasties, the Mauryas being of the Solar race, while the Guptas were of the Lunar race and some of them held the late Sakta form of the Sivante faith.<sup>2</sup> He himself proposed another date, which however erred as much in the opposite direction. Rightly identifying the Gupta dynasty with that mentioned in the Purānas, but miscalculating their age from the untrustworthy dates furnished by those pseudo-historical works, he suggested in 1837 the "age of Charlemagne in Europe," in the ninth century A. D., as the probable date of the Guptas and their inscriptions.<sup>3</sup> A similarly erroneous suggestion had been, already in 1831, made by Mr. J. Prinsep, who thought the similarity of the Gupta character with those of Tibet, known to have been brought there from India in the seventh century A. D., might be considered to favour the latter date.<sup>4</sup> In the meanwhile, however, the dated copper-plates from Gujrat were read by Mr. W. H. Wathen in 1835. Their dates and the striking similarity of their characters with those of the Gupta inscription finally led Mr. J. Prinsep to the discovery of the true date, the third century A. D., which he announced in 1838, and illustrated by a comparative table of the successive Indian alphabets.<sup>5</sup>

---

J. A. S. B., Vol. III, p. 115      <sup>2</sup> *Ibid.*, p. 267, and Vol. VI, p. 9      <sup>3</sup> *Ibid.*, Vol. VI, p. 12      <sup>4</sup> *Ibid.*, Vol. III, p. 115      <sup>5</sup> *Ibid.*, Vol. VII, pp. 275, 629

The most important achievement of Mr James Prinsep, however, consists in his great discovery of the value of "the alphabet and the language of those ancient pillars and rock inscriptions which have been," as he says, "the wonder of the learned since the days of Sir William Jones."<sup>1</sup> The characters of these inscriptions are again as widely different from the Gupta characters, as the latter are from the modern Nāgarī.<sup>2</sup> They appear to have been first made known to the Society about 1795 through some short inscriptions from the Ellora caves, forwarded to Sir W. Jones by Sir Charles Ware Mallet. They were submitted to Lieutenant Wilford, whose ingenuity did not fail him in providing a translation. "I have the honour to return," he writes to Sir W. Jones, "the facsimile of the several inscriptions with an explanation of them I despaired at first of ever being able to decipher them; for as there are no ancient inscriptions in that part of India (Benares), we never had, of course, any opportunity to try our skill and improve our talents in the art of deciphering. However, after many fruitless attempts on our part, we were so fortunate as to find at last an ancient sage, who gave us the key, and produced a book in Sanskrit containing a great many ancient alphabets, formerly in use in different parts of India; this was really a fortunate discovery, which hereafter may be of great service to us."<sup>3</sup> Lieutenant Wilford's 'discovery' appears to have passed unquestioned for many years, for Mr A. Sterling, writing about 1820 on the Khadagn rock inscription, which is in the same character, says. — "A portion of the Ellora and Salsette inscriptions, written in the above character, has been deciphered by the learning and ingenuity of Major Wilford, aided by the discovery of

<sup>1</sup> J A S B, Vol VI, p 452<sup>2</sup> *Ibid*, p 566<sup>3</sup> As Res, Vol V, p 135

a key to the unravelling of ancient inscriptions in the possession of a learned Brahmin: and it is to be regretted that the same has not been further applied to deciphering the Delhi and other characters.<sup>1</sup> Indeed a similar regretful reference to Lieutenant Wilford's discovery of the key was made by Mr. Prinsep himself in 1833, only about a year or two before he discovered the true key.<sup>2</sup> This regret is natural enough, but it can hardly surprise that no further practical application was made of the "learned Brahmin's" key, for it is much to be feared that, as in his other antiquarian researches, in this instance too, Lieutenant Wilford fell a victim to the astuteness of a designing pandit, who traded on his credulity. However that may be, it is certain that his so-called 'discovery' was a thorough delusion, for his texts are entirely imaginary readings of the original, while his translations are entirely imaginary interpretations of the imaginary texts—in unintelligible jargon which is supposed to relate the wanderings of Yudhisthira and the Pandavas through forests and uninhabited places. "They were precluded"—so Lieutenant Wilford conjectures—"by agreement from conversing with mankind. But their friends and relations, Vidura and Vyasa, contrived to convey to them such intelligence and information as they deemed necessary for their safety. This they did by writing short and obscure sentences on rocks or stones in the wilderness, and in characters previously agreed upon betwixt them."<sup>3</sup>

Subsequently some more and larger inscriptions in the same character were communicated to the Society, among

---

<sup>1</sup> As Res. Vol. XV p. 314.    <sup>2</sup> J. A. S. B., Vol. II p. 317.    <sup>3</sup> As Res. Vol. V p. 136. The ascription to the Pandavas seems to have been a common Hindu conceit, for the Delhi Pillar which exhibits the same character is by them supposed to have been Bhim Sen's staff with which he used to grind his *bhang*; see J. A. S. B., Vol. III, p. 106.

them the celebrated Asoka inscriptions on the pillars of Dehli and Allahabad from Captain J. Hoare. and that on the Khandagiri Rock from Mr. A. Sterling.<sup>1</sup> But, after Lieutenant Wilford's failure, no further attempt was made to read them, and they remained to the European enquirers as great a mystery as they had been for ages to the natives of India, till Mr. J. Prinsep's efforts again brought them into prominent notice, and his genius succeeded in discovering the true key to their decipherment. In 1834, he prevailed on Lieutenant T. S. Burt to procure a good and complete facsimile of the inscription on the Allahabad pillar; and in the same year he received a copy of the inscription on the pillar of Mathiah, and in the following year (1835) one of that on the pillar of Radhiab, both through the assistance of Mr. B. H. Hodgson.<sup>2</sup> On comparing these three inscriptions with that on the Dehli pillar, which had been previously in the Society's possession, with a view to find any other words which might be common either to two or to all of them, Mr. Prinsep was led, as he tells us, "to the most important discovery that all four inscriptions were identically the same."<sup>3</sup> This was, indeed, an important discovery, as it afforded to him a fuller and more trustworthy means of comparing and classifying the symbols of the mysterious alphabet—a task which he had commenced not long before. Mr. A. Stirling, when communicating to the Society his copy of the Khandagiri rock inscription, had thought he could notice "a close resemblance of some of the letters to those of the Greek alphabet," instancing particularly "the Greek *ou. sigma. lambda. chi. delta. epsilon.* and a something closely resembling the figure of the *digamma.*"<sup>4</sup> In doing so however,

<sup>1</sup> As. Res., Vol. VII pp. 175-176; and Vol. XV, p. 312.    <sup>2</sup> J. A. S. B., Vol. III p. 483; and Vol. IV p. 125.    <sup>3</sup> *Ibid.* Vol. III p. 484, *Ibid.*, Vol. IV, p. 126

<sup>4</sup> As. Res. Vol. XV pp. 313-314.

he merely repeated an observation which had occurred to others long before him, as noted by Father Tieffenthaler,<sup>1</sup> who says that those who held the Grecian theory believed that the Delhi pillar had been erected by Alexander the Great; and he adds that "this was an error." But Tieffenthaler's own explanation, that they were partly numerical figures, partly figurations of weapons of war, (the record, in fact, being merely a numerical list of arms) was no better than Lieutenant Wilford's so-called discovery.

Curiously enough, the Greek theory received in 1834 what almost seemed to amount to proof from Major (afterwards Colonel) D. L. Stacey, who actually read the Greek word *soter* on two coins bearing an inscription in those unknown characters. Mr. J. Prinsep, however, at once suspected the fallaciousness of this reading, for he remarked that "the apparently Greek letters, when inverted, resembled closely the Delhi character; it would be wrong, therefore, to assume positively that they were Greek."<sup>2</sup> He felt convinced that the resemblance to Greek letters was "entirely accidental, and that the alphabet was really "of the Sanskrit family." It was for the purpose of determining this point that he undertook the trouble of minutely analysing and classifying all the symbols occurring in the Allahabad pillar inscription. Proceeding in this manner, he soon perceived that each radical letter was subject to five principal inflections, the same in all, corresponding in their nature and application with the five vowel marks of the ancient Sanskrit of the Gupta inscriptions which was already

---

<sup>1</sup> Description de l'Inde, Part I, p. 129 (French Edition) Mr. J. Prinsep in J. A. S. B., Vol. III, p. 117, seems to have thought it an original observation of Mr. Stirling's, but the latter himself refers to Tieffenthaler. <sup>2</sup> J. A. S. B., Vol. III, p. 433

well-known at that time His result he exhibited in a well-arranged table showing the letters and their inflections, and thus clearly established his first point, that the letters were Sanskrit and not Greek.<sup>1</sup>

The next point to discover was the power, or signification of these unknown letters, that is, to determine to which of the Sanskrit characters of the well-known Nāgarī system each of the unknown ancient Sanskrit symbols corresponded. The first mode which occurred to him was to count how often each radical symbol of the unknown system and of the modern Nāgar respectively occurred in a page of the ancient inscription and in a page of a modern copy of some well-known Sanskrit work (he took the *Bhatta Kāvya*), and then to compare the numbers thus obtained. The idea, of course, was that those symbols which were found to coincide in frequency in the two lists would prove to possess the same power of signification. Though Mr. Prinsep himself appears to have expected much from this process,<sup>2</sup> it led to no result, and with our present knowledge, it is easy to see that it could not possibly yield any result, the very preliminary conditions of a successful comparison were absent ; for, as we now know, the subject-matter of the two writings compared is widely different, and what is more, the language of the inscription is not Sanskrit, but an ancient kind of Prākṛit (Pāli). The next method which Mr. Prinsep tried for the purpose of determining the value of the unknown letters was a much sounder one, and one which did actually lead a long way in the solution of the riddle. He set himself to compare carefully the forms of the unknown letters with those of the Gupta alphabet, the oldest till then known. In this manner he soon discovered

<sup>1</sup> J A S B, Vol III, p 117, plate v, also *ibid*, p 487

<sup>2</sup> *Ibid*, p 484

that certain letters of the two alphabets resembled one another, from which he further concluded that in all probability they were identical. And though no doubt some of his identifications ultimately turned out to be erroneous, he was correct in many others, for example, in those referred to by him in the following passage, written in October 1834:—"From the resemblance (of a certain subjoined letter) to the corresponding letter of the Gaya alphabet, I think a strong probability is established that this letter is equivalent to *y* of the Devanāgarī alphabet. The other subjoined letter has a great analogy to the Sanskrit *v*. The letter with which those two are most frequently united may, with equal probability, be set down as equivalent to the Devanāgarī *s*."<sup>1</sup> About the same time, encouraged by the earlier efforts of Mr Prinsep, the Rev. J. Stevenson was induced to take up the same line of enquiry, and succeeded in adding a few more to the list of identified symbols, among them those for *k*, *j*, *th*, *p*, and *b*.<sup>2</sup>

With the help of these identifications attempts were at once made to translate the inscriptions, but with no satisfactory result; partly because the translators were still under the erroneous impression that their language was Sanskrit,<sup>3</sup> partly because of the most important letters some had been wrongly identified (*e g*, *n* as *ι*), while others had not been identified at all (*e g*, *d*). One very striking and most interesting application, however, was made at this stage by Professor Lassen, of Bonn, who, in 1835 or 1836, successfully read the name of Agathocles on a Bactrian coin, inscribed with those ancient symbols.<sup>4</sup>

<sup>1</sup> J. A. S. B., Vol. III, p. 485<sup>2</sup> *Ibid.*, p. 498<sup>3</sup> *Ibid.*, pp. 487, 495<sup>4</sup> *Ibid.*, Vol. V, p. 723, and Vol. VI, 465



once declared his belief that they were more ancient than the Gupta characters, which at the time were believed to be coeval with the commencement of the Christian era. He thought that this might be proved—"First, by the position the inscription occupied on the Allahabad columns as well as on that of Delhi; in both it was the principal, and, as it were, the original inscription, the others being subsequently added, perhaps on some occasion of triumph or visit to the spot. Secondly, the simplicity of the character and the limited number of radicals denoted its priority to the more complicated and refined system afterwards adopted; while, thirdly, the very great rarity of its occurrence on ancient monuments, and the perfect ignorance which prevailed regarding its origin in the earliest Persian historians who mentioned the reign of Feriuz Shah, confirmed its belonging to an epoch beyond the reach of native research."<sup>1</sup> With the exception of the reference to the very great rarity of such inscriptions—for they really occur more frequently than it was known at that time—Mr. Prinsep's reasons still hold good. But the question was finally set at rest, and the truth of his surmise proved by the discovery, made mainly by Mr. Prinsep himself, of the mention in the inscription of the names of certain persons whose place in history was perfectly well ascertained. On applying his key to the pillar inscriptions, he soon discovered in 1837 that they contained edicts promulgated by a certain king called "Piyadasi, the beloved of the gods;"<sup>2</sup> and his discovery was carried a step further by the Hon'ble G. Turnour, who, a little later in the same year, succeeded, from information afforded by the historical works of the Buddhists in Ceylon, in identifying

<sup>1</sup> J A S B, Vol III, p 116

<sup>2</sup> *Ibid.*, Vol. VI, pp 470ff

the Pivadasī of the inscriptions with the Indian king Asoka, a grandson of the well-known Chandrīa Gupta, of the Maurya dynasty<sup>1</sup>. In the following year, 1838, Mr. Prinsep crowned this series of discoveries by discovering that king Pivadasī in his edicts mentioned by name several Greek kings. Among them were an Antiochus and a Ptolemy. It is true that Turnour, whose view was adopted by Mr. Prinsep, misled by the inaccurate chronological system of the Ceylonese Buddhist works, fell into an error in calculating Asoka's date, making his long reign of forty-one years to fall at first into the last quarter of the fourth century B C, and afterwards into the second half of the third century B C.,<sup>2</sup> and accordingly identifying the Antiochus of the inscriptions with Antiochus III (the Great of Syria 223-176 B C.)<sup>3</sup>. Later investigations have shown that the two names of Antiochus and Ptolemy mentioned in the inscriptions really referred to Antiochus II (Theos of Syria, 263-247 B C.), and Ptolemy III (Philadelphus of Egypt, 246-221 B C.), and that the correct date of Asoka's reign most probably is about 264-223 B C.<sup>4</sup> But, though important as regards strict historical accuracy, after all the correction is too insignificant to detract anything from the honour due to Messrs Prinsep and Turnour for the success of their original discovery.

The opinions of the early enquirers with regard to the language in which these ancient inscriptions were composed went through some curious alternations. The earliest view was that they were expressed in an ancient species of the vernacular of India, or, as we should now say, in a species of ancient Prākṛit (or Pālī). This was the

<sup>1</sup> J A S B, Vol VI, pp 1051ff    <sup>2</sup> *Ibid*, p 1057    <sup>3</sup> *Ibid*, Vol VII, p 162

<sup>4</sup> See Genl. Cunningham's *Corpus Inscriptionum Indicarum*, preface, pp iii, vii

opinion of Lieutenant Wilford, who, writing about the year 1795 on the Ellora inscriptions, which he thought he had deciphered, says:—"They are written in an ancient vernacular dialect, and the characters, though very different from those now in use, are nevertheless derived from the original or primeval Sanskrit, for the elements are the same."<sup>1</sup> Lieutenant Wilford's opinion appears to have been generally acquiesced in, for Mr. A. Stirling, referring to the Khandagiri rock inscription, in 1823, writes:—"The natives of the district can give no explanation whatever on the subject. The Brahmins refer the inscription with shuddering and disgust to the *budh ka amel*, or time when the Buddhist doctrines prevailed. I have in vain also applied to the Jains of the district for an explanation. I cannot, however, divest myself of the notion that the character has some connection with the ancient Prākṛit, and considering that it occurs in a spot for many ages consecrated to the worship of Parasnāth, which the Brahmins are pleased to confound with the Buddhist religion, and that the figure or characteristic mark which appears in company with it (the *swastika*) does, in some sort, seem to identify it with the former worship, I am persuaded that a full explanation is to be looked for only from some of the learned of the Jain sect"<sup>2</sup>

Mr. Stirling's opinion, though based more on conjecture than sound evidence, came really much nearer the truth than he at that time could know; but the discovery of it was not made by a "learned of the Jain sect," but by one of his own nation. Previously, however, the current of the general opinion regarding the language of the inscription underwent, for a time, an entire

<sup>1</sup> As Res, Vol V, p 136

<sup>2</sup> *Ibid*, Vol XV, pp 314 315

change. This may be inferred from a remark of Mr. James Prinsep in 1834.—“It is not yet ascertained whether the language this character expresses is Sanskrit.”<sup>1</sup> The remark, it is true, occurs in an argument directed, not against the Prakrit, but the Greek theory of the inscription, and may therefore be thought not necessarily to exclude the former theory. But in the same year the Sanskrit theory was distinctly put forward by Mr. B. H. Hodgson in a letter addressed to Mr. J. Prinsep.—“When we consider the wide diffusion over all parts of India of these alphabetical signs, we can scarcely doubt their derivation from Devanāgarī, and the inference is equally worthy of attention that the language is Sanskrit.”<sup>2</sup> And in commenting on this communication, Mr. J. Prinsep expressed his acquiescence in Mr. Hodgson’s suggestion.—“The new facts now brought to light will, I hope, tend to facilitate this object (the discovery of the language), and leave little doubt that the alphabet is a modification of Devanāgarī and the language Sanskrit, as suggested by Mr. Hodgson.”<sup>3</sup> Neither were Messrs. Hodgson and Prinsep singular in accepting this view, for it was also held by the Rev. J. Stevenson, on the Bombay side, as is evident from a remark he made in transmitting (in 1834) to Mr. Prinsep the result of his researches into the pillar inscriptions.—“I think the first thirteen letters on the Allahabad stone may, without much difficulty, be read as containing an address, probably to the sun, in pure Sanskrit.”<sup>4</sup>

Of course, this view was at once abandoned, the moment that Mr. Prinsep made his great discovery of the key to the true reading of the ancient character, which left no further doubt that the language was really an old vernacular, a kind

---

<sup>1</sup> J. A. S. B., Vol. VI, p. 116.    <sup>2</sup> *Ibid.*, Vol. III, pp. 481, 482.    <sup>3</sup> *Ibid.*, p. 487.  
<sup>4</sup> *Ibid.*, p. 125.

of ancient Prākṛit. Communicating the first correct transcription of the opening sentence of the pillar inscription, after his discovery, Mr. Prinsep says:—"Here we perceive at once that the language is the same as was observed on the Bhilsa fragments"—which had just before furnished him with the 'key,'—"not Sanskrit but the vernacular modification of it, which has been so fortunately preserved for us in the Pāli scriptures of Ceylon and Ava"<sup>1</sup> The last statement is not strictly correct. It is now known that the language of the Asoka inscriptions is not identical with the Pāli of the Southern Buddhists, though it is very closely allied to that language. It cannot be expected, however, that such an intricate point of difference should be recognized at once; and as to the main issue, undoubtedly Mr. Prinsep's discovery was perfectly genuine.

Looking back on the series of discoveries, for which we are thus indebted to his genius, it is impossible not to sympathise heartily with the gratified tone of Mr. Prinsep's words, in which he, in 1837, shortly before he left the shores of India, summed up the results of his original researches. It was a particularly gratifying circumstance which afforded him the occasion of doing so. Some years previously, Colonel W. H. Sykes had forwarded to the Royal Asiatic Society of England a series of copies of inscriptions met with in Western India; but on learning, as he says, "the admirable and efficient use Mr. Prinsep had made in his able journal, of the ancient inscriptions and ancient coins found in various parts of India, he was induced to apply to withdraw all his copies from the hands of the Royal Asiatic Society with a view to offer them to Mr. Prinsep to make such use of as he might think proper."<sup>2</sup> As it happened,

<sup>1</sup> J A S B, Vol VI, p 469

<sup>2</sup> *Ibid* p 1038

the copies were not returned from England ; but it was on the occasion of this offer of Colonel Sykes, the honor implied in which deeply touched him, that Mr Prinsep recorded the summary above referred to :—" More than one great question is certainly involved in the solution of the cave inscriptions of Western India To whom is to be attributed their construction ? From what period have they existed ? In what language and character are the records sculptured ? Unknown to Colonel Sykes, the whole of these questions have been already solved as regards the pillar monuments on this side of India They are of the third or fourth century anterior of our era ; they are of Buddhist foundation ; and the language is not Sanskrit, but a link between that grammatical idiom and the Pāli of the Buddhist scriptures ; and the alphabet appears to be the very prototype of all the Devanāgarī and Dakṣiṇī alphabets "<sup>1</sup>

Colonel Sykes, in the passage quoted above, speaks of the admirable and efficient use which Mr Prinsep made of ancient coins This brings us to another great discovery similar to, and hardly less important than, the discovery of the key to the Asoka alphabet—a discovery of which Mr Prinsep at least laid the foundation, though others were destined to carry it to so much of its successful conclusion as has been at present attained.

Contemporaneously with the Asoka alphabet, the successful discovery of the key of which has been above related, another system was also in use in ancient India This system is now commonly called the Bactrian or Ariian Pāli alphabet, to distinguish it from the Lath or Indian Pāli The area in which it flourished was the







reverse) the inscription is in Pehlvi," he proceeds to distinguish the Indo-Scythian coins, and says "on some of them (the coins of Kadphises, which Mr. Prinsep at that time believed to be posterior to those of Kanerki) "we find the same kind of character which appears on the Delhi and Allahabad pillars, the same which is found at Ellora and in many ancient caves and temples of Central India, and is held in abhorrence by Brahmins as belonging to the Buddhist religion."<sup>1</sup> As an instance, he quotes the very coin above referred to, which Colonel Tod had described as having a Sassanian legend, and says:—"what he supposes to be Pehlvi characters on the reverse, I incline to think characters of the Delhi type."<sup>2</sup>

It is clear from this strange discrepancy that at that time Mr. Prinsep could not have given much examination to these characters; if he had done so, he could not possibly have failed to recognise that the characters on the two classes of coins, the Bactrian and Indo-Scythian, were identical, and that therefore they must all be either Pehlvi or Nāgarī. Indeed, it is evident from the context in which his remarks occur, that the contradictory view which he then unwittingly held was based not so much on paleographic as on historical grounds. He had rightly enough come to the conclusion, that the Indo-Scythian kings were Buddhists, whence he, though wrongly, inferred that the alphabet they used must be the ancient Nāgarī which he knew to have been used by the Buddhist King Asoka.

---

<sup>1</sup> J A S B, Vol II, pp 313 and 316 In the latter part of the passage, he is referring to the remarks of Major Wilford in *As Res*, Vol V, p 140, and of Mr A Stirling in *As Res*, Vol XV, p 314 (above quoted, see p 66) <sup>2</sup> J A S. B, Vol II, p 317

About twelve months later, in July 1834, he takes occasion to state once more his view of the Nāgarī character of the alphabet. General Ventura, in excavating the Manikyāla Tope, had found a brass reliquary and a silver disk, both bearing short inscriptions in Asian Pālī characters. Describing the former object he says:—"The character so strongly resembles an ancient form of Nāgarī, such as might be used in writing, without the head lines of the book-letter, that sanguine hopes may be entertained of its yielding to the already successful efforts of our Vice-President (Rev Dr Mill) and Captain Troyer." And similarly with regard to the silver disk. "The characters are precisely those of the lid of the outer brass cylinder, but their combination is different. There can be little doubt of their affinity to the Sanskrit, but the difficulty of decyphering them is enhanced by the substitution of the written-hand for the perfect Nāgarī, which it is clearly proved from the coins discovered in the first box to have been known at the same period. The difference is such as is remarked between the Mahājanī and the printed Nāgarī of the present day."<sup>2</sup>

It is not difficult to read between the lines of this passage the progress which Mr Prinsep, in the meanwhile, had made in his views. It is clear that he had applied himself to the discovery of the key of the new alphabet; on doing so, he had—as indeed could not be otherwise—recognized that the characters on the Bactrian and Indo-Scythian coins were identical, that the theory he had hitherto held regarding them was contradictory and untenable, and that the alphabet must be either wholly Pehlvi or wholly Nāgarī; lastly

<sup>1</sup> J A S B., Vol III, p 318, compare p 118

<sup>2</sup> *Ibid*, p 319

he had decided in his own mind that it must be wholly Nágari. It should be remembered that just at that time Mr. Prinsep had been successful in proving his own view of the Sanskrit character of the Asoka alphabet against the upholders of the Grecian theory. It cannot surprise us, therefore, to find him similarly favouring a Sanskrit theory of the Arian Páli alphabet in opposition to the Pehlevi theory at that time generally accepted. His idea seems to have been that the Indian Páli and the Arian Páli characters would prove to be merely two forms of the same ancient Nágari alphabet, the former being its *kalligraphic*, the latter its *cursive* form. And it may be assumed, with great probability, that he similarly expected the language expressed by the latter character would prove to be a kind of ancient Prákrit (or Páli). With regard to the letters he was undoubtedly in error, but in his expectation of the language being ancient Prákrit, the event proved him to have been correct.

In the meantime, he soon found reason to abandon his newly conceived Nágari-Prákrit theory altogether in favour of a return to the old theory of the letters and language being some kind of Pehlevi. The first indication of this new change of front appears only six months later, toward the end of 1834. In the course of that year an Arian Páli inscription on a large slab of stone had been discovered in a tope opened by Captain (afterwards General) Court. Referring to this inscription, a copy of which had been sent to Mr. Prinsep, he says, that "it will probably prove to be in the same dialect of the Pehlevi as occurs on the cylinders;" and he adds: "although my progress in deciphering the character in which it is written does not yet enable me to transcribe the whole, still I see very distinctly in the second line the word *Mulikao*, 'king,' in the

very same characters that occur on the reverse of so many of the Bactrian coins."<sup>1</sup>

Among the circumstances which induced him to return to the older Pehlevi theory and which at the same time led him to discover the key of the unknown alphabet, one, and that not the least important, was contributed by Mr. Masson, well known through his antiquarian discoveries in Afghanistan. They are thus related by himself in 1835. After mentioning that he had received three large collections of Bactrian coins belonging to Shekh Keramut Ali, Dr. Geraud and General Ventura, he proceeds to say. "The careful examination of the whole (of these collections) has furnished me a clue to the Bactrian form (if we may so call it) of the Pehlevi character, which is found on the reverse of many of these coins; and it will better enable us to describe them, if we begin by explaining what we have been able to make of the alphabet of this native language, which, from its marked difference from other types of the same character, I have ventured to term the Bactrian Pehlevi. Mr. Masson first pointed out, in a note addressed to myself through the late Dr. Geraud, the Pehlevi signs, which he had found to stand for the words *Menandrou*, *Apollodotou*, *Ermaïou*, *Basiteos* and *Soterios*. When a supply of coins came into my hands, sufficiently legible to pursue the enquiry, I soon verified the accuracy of his observation; found the same signs, with slight variation, constantly to recur, and extended the series of words thus authenticated to the names of twelve kings, and to six titles or epithets. It immediately struck me, that if the genuine Greek names were faithfully expressed in the unknown character, a clue would, through them, be

---

<sup>1</sup> J A S B., Vol. III, pp. 557, 563

formed to unravel the value of a portion of the alphabet, which might in its turn be applied to the translated epithets and titles, and thus lead to a knowledge of the language employed. Incompetent as I felt myself to this investigation, it was too seductive not to lead me to a humble attempt at its solution."<sup>1</sup>

The attempt at thus comparing the corresponding groups of Greek and Arian Páli letters led to two important results. In the first place, it showed Mr. Prinsep that the two groups differed in one important respect; while the Greek letters, as is well-known, are read from left to right, these Arian Páli letters, as he found, must be read from right to left. There could be no doubt on this point; for one thing, it followed "from the regular recurrence of certain letters at what must be the close of the words to which they belonged, as it was impossible that various names and epithets should begin with the same letter, although as taking the like inflections of gender and case, they would most probably end alike."<sup>2</sup> This important fact was sufficient at once to convince Mr. Prinsep that his idea of the unknown characters being Nágari was wrong, and that they belonged to the Semitic class of letters, and, as had generally been inferred from various resemblances to Pehlevi, must be some form of the latter alphabet. In the second place, his comparison of the corresponding groups of Greek and Arian Páli letters enabled him to attempt a determination of a considerable number of Arian Páli equivalents of Greek letters. Unfortunately his prejudice—a very natural one under the circumstances—that since the alphabet had proved to be a kind of Pehlevi, the language expressed by it must be also referred to the same affinity, necessarily

<sup>1</sup> J. A. S. B., Vol. IV, pp. 327, 328, 329

<sup>2</sup> See Wilson's *Ariana Antiqua*, p. 260

betrayed him into many erroneous valuations. Thus finding the word *malaka* to express 'king' in the Pehlevi legends of Sassanian coins, he adopted it as the Arian Pāli equivalent of the Greek *Basileos*<sup>1</sup>. The consequence was that he mistook the true value of the three letters *l*, *k*, *o*, the only correct identification being that of the initial letter *m*. Under these circumstances, it cannot be surprising that the result of this first attempt at decipherment was not generally accepted as satisfactory, for it was soon found that many groups of letters, which were well enough known according to Mr. Prinsep's valuation, would yield no intelligible Pehlevi words.

This difficulty led Dr. Swiney to look for the key to the unknown alphabet in an altogether different direction. In 1837 he announced what he believed to be a discovery of it in the Celtic language, the grounds for which he thus explained: "The key I propose is the Celtic—a name given to a language now only known by its remains, preserved to us by various hordes of men settled in Europe, it is true, but for whom the learned of every age have claimed an eastern descent and high antiquity. What advantages the Celtic may possess over the Zend and the Syriac in unravelling Bactrian terms, remains to be proved. It will be admitted, however, by the examples I am about to give that something more than a verbal coincidence of terms has been ascertained"<sup>2</sup>. It is not necessary to quote these examples or further to notice this curiously abortive attempt at a Celtic identification, seeing that it laboured *ab initio* under the fatal defect of being based on a comparison of entirely imaginary words. There is the less need to do so, as Mr. Prinsep, who had himself been not

<sup>1</sup> J. A. S. B., Vol. IV, p. 335

<sup>2</sup> *Ibid*, Vol. VI, p. 98

the least dissatisfied with the result of his first attempt was soon after led to seek the solution of the enigma in the true quarters, namely, the ancient Prakrit or Pāli.

Early in 1838 his attention had been attracted by the occurrence of the well-known Asoka character in inscriptions and on some coins found within the limits of ancient Bactriana, whence he rightly argued that "a dialect mainly derived from the Sanskrit was anciently used in Bactria." Applying this new light to the reading of the Bactrian coins, he soon discovered that it did indeed clear up the mystery. "When I look back," he writes, "at my attempt of 1835, I must confess it was very unsatisfactory even to myself. I was misled by the Nakshi Rustam trilingual inscription, wherein the title of king of kings has been uniformly read as *malakán malaká*, though I balanced between this and the term *mahanáo*, having found *rao* on the Indo-Scythic series. But once perceiving that the final letter might be rendered as *sa*, which is the regular Pāli termination of the genitive case, I threw off the fetters of an interpretation through the Semitic languages, and at once found an easy solution of all the names and the epithets through the phant, the wonder-working Pāli, which seems really to have held an universal sway during the prevalence of the Buddhist faith in India."<sup>2</sup> The new view thus opened out not only led to an almost entirely new re-valuation of the Bactrian symbols, but laid the foundation of that system of decipherment of Arian Pāli inscriptions, the truth of which was increasingly confirmed by every new accession to our knowledge.

Among those who made the most extensive contributions to this knowledge was Lieutenant (now Major-General) A

Cunningham He was indeed from the first associated with Mr. James Prinsep in his discoveries, as may be seen from the following reference to his valuable assistance, which occurs in one of Mr. Prinsep's Essays as early as 1836. "Henceforth my readers should understand, and they will, doubtless, soon perceive the fact, that my coin essays are joint productions, and that I have an auxiliary at my elbow, far better acquainted with the contents of, I may say, all the collections of coins in India than I have leisure to become. With his zealous aid in hunting out the unpublished varieties of every class, I hope to make these notices complete as far as discovery has yet proceeded, and to do fuller justice to the numerous contributions I continue to receive from my numismatic coadjutors in the interior."<sup>1</sup> It was Lieutenant Cunningham who, after the departure of Mr. Prinsep from India, mainly carried on the course of the recovery of the Arian Pāli alphabet. He not only gradually succeeded in adding many more to the single letters already discovered by Mr. Prinsep,<sup>2</sup> so that in 1845 he was in a position to announce that "he believed he had found the Arian-Pāli equivalent for every letter of the Sanskrit alphabet,"<sup>3</sup> but he was also the first to identify some of the much more difficult compound symbols, especially the conjuncts of *r* (as *tr*, *rm*, *rv*)<sup>4</sup>

In connection with this subject it would not be right to pass over altogether the name of Mr. Norris, who, together with Mr. Prinsep and General Cunningham, forms the triumvirate of Arian Pāli discoverers, though his contributions, being made through the Royal Asiatic Society, do not belong to the honour-roll of this Society

<sup>1</sup> J A S B, Vol V, p 652    <sup>2</sup> *Ibid*, Vol IX, pp 871, 882, 883, 887-889, Vol XXIII, p 709    <sup>3</sup> *Ibid* Vol XIV, p 430    <sup>4</sup> *Ibid*, Vol IX, p 863, Vol XIV, p 432, and Vol XXIII, pp 709, 710



In the main, the discovery of the Arian Páli alphabet, as at present known, was completed about 1854. In that year the results then attained were thus summed up by Major A. Cunningham, at the end of an essay on coins of the Indian Buddhist Satraps, in which he had just announced some new identifications: "I cannot close this account without saying a few words in favor of my claim to the discovery of the true values of eleven letters or just one-third of the Ariano-Páli alphabet. The whole number of single-letters amount to thirty five, of which Mr. James Prinsep had assigned the true value to seventeen, or just one-half. To Mr. Norris is due the discovery of six single letters, of which two are the monumental forms of *ch* and its aspirate; and the form of one letter, *jh*, still remains unknown. Of the nine known vowels (five initial and four medial) seven were determined by Mr. James Prinsep, and two by me. Of the few compound letters which are at present known, the numismatic *anusvāna* was discovered by Mr. James Prinsep, the monumental one by Mr. Norris, but the attached *r* in *kra*, *tra*, *dra*, and *stra*, the attached *t* in *st*, the attached *m* in *rm* are all due to myself. The single letters, of which I claim the discovery are *g*, *gh*, *ng*; *ch*, *cch*; *t*, *d*; *ph*, *b*, *bh*; *v*; all of which, with the exception of the fourth and fifth, were made known in this Journal before the publication of Mr. Norris's alphabet in the Journal of the Royal Asiatic Society for 1846."

Though the determination of the Arian Páli alphabet, as it stands at present, is undoubtedly a very great step in advance, much yet remains to be done before its enigma can be said to be truly resolved. The very circumstance which first afforded a clue to the disco-

very—the equivalence of Greek and Arian Páli letters on the bilingual coins of ancient Bactriana—now acts to some degree as a hindrance ; for there are far-reaching divergences between the language and symbols of the Arian Páli and the Greek. The alphabet which has yielded fairly satisfactory renderings of the bilingual Bactrian coins and very small Prákrit inscriptions has hitherto failed, with one exception, to render intelligible any of the larger Arian Páli records, though undoubtedly much of this failure is also due to the unsatisfactory character of the copies as yet available. The earliest of these attempts at reading any of the larger inscriptions was made by Sir E. C. Bayley on the record engraved on the Wardak vase, his rendering, with alterations and additions made by Dr. Rájendralála Mitra, was published in 1861<sup>1</sup>. Two years later, in 1863, General Cunningham published a preliminary reading of the inscription on the Taxila copper plate,<sup>2</sup> and again seven years later, in 1870, Sir E. C. Bayley gave a tentative reading of the copper plate inscription found in the Sue Vihái tower<sup>3</sup>. The last inscription is the one above referred to as being the only one which as yet has received an intelligible and satisfactory translation. This was done in 1881 by the writer of the present Review<sup>4</sup>.

---

<sup>1</sup> J. A. S. B., Vol. XXX, pp. 337ff, 347ff      <sup>2</sup> *Ibid*, Vol. XXXII, pp. 139ff

<sup>3</sup> *Ibid* Vol. XXXIX, pp. 65ff      <sup>4</sup> Proceedings for 1881 p. 139, see also *Indian Antiquary*, Vol. X, pp. 324ff

## CHAPTER IV.

## HISTORY.

[The Maurvas Chandragupta, Asoka, Dasaratha — The Andhras — The Graeco-Bactrians and Indo-Bactrians — The Indo-Scythians Kadphises, Kanishka, Hushka — The Surashtrians or Satraps — The Mitras or Sungas, the Dattas, the Devas, the Kunandas, the Nāgas — The Guptas their list, date and era — The Valabhis their list and era — The Rathors of Kanauj — The earlier rulers of Kanauj — The Chandels of Malhoba — The Pālas of Bihar and Bengal — The Senas of Bengal — The Muhammadan rulers of Bengal — Miscellaneous historical and biographical contributions ]

ONE of the great merits of the Asiatic Society of Bengal is to have laid the foundation for a true history of Ancient India. Antecedently to the discoveries made through the researches of the Society in the antiquities of India, the history and chronology of that country down to the Muhammadan conquest was inextricable from a mist of more or less legendary tradition, a great part of which was incredible, and all of which was exaggerated or distorted both in regard to the actual events and to the dates at which they were said to have occurred. The only sources which, at that time, were available to the student of Indian history were the traditions, legends and myths, which had been gradually, in the course of many centuries, accumulated in the great epic poems, the Puranic cyclopædias and provincial chronicles, written for the most part in scholastic Sanskrit language by authors to whom history and fiction seem not to have appeared antagonistic. Indeed, the two most trustworthy of the provincial chronicles, the *Rājatarangini* of Kashmir and the *Mahavamsa* of Ceylon, which

make the nearest approach to historical narration, did not become sufficiently known till after the first landmarks in ancient Indian history had been fixed through the discoveries of the Asiatic Society, when they rendered material assistance in filling in such details as could not be ascertained from other sources. The most important of these sources without which indeed no history of ancient India would have been possible are the antiquities of the country, its ancient monuments, inscriptions and coins the discovery and interpretation of which are mainly due to the researches of the Society.

The unsatisfactory character of the knowledge of ancient Indian history, before those discoveries, is not without illustrations in the very pages of the earlier Transactions of the Society itself. The earlier volumes of the Asiatic Researches contain several lengthy dissertations by Lieutenant (afterwards Colonel) Francis Wilford on various subjects connected with the chronology and history of ancient India, published successively in the years 1792, 1795, 1798, 1805, 1807, 1808, 1810 and 1822<sup>1</sup>. They are perhaps unrivalled for the labour, learning and ingenuity bestowed on them, but they are no less unsafe as a guide to Indian history, both on account of the untrustworthiness of the sources relied on, and the extravagance of conjecture displayed in them. Belonging to the same early stage of

---

<sup>1</sup> As Res, Vol III, p 295, "On Egypt and the Nile, from the Sanskrit," Vol IV, p 363, "On Semiramis, the origin of Mecca &c from the Hindu Sacred Books," Vol V p 241, "On the Chronology of the Hindus," Vol VIII, p 245, "On the Sacred Isles in the West," Vol IX p 32, "On the Sacred Isles in the West, including Essays on the Chronology of the kings of Magadha and on the Eras of Vikramaditya and Sahvahana," Vol X, p 27 and Vol XI p 11, 'On the Sacred Isles in the West,' Vol XIV, p 373, "On the Ancient Geography of India" J A S B, Vol XX, pp 227, 470, 'On the Comparative Geography of Ancient India'

historical enquiry, though of a much more sober character, are two contributions by Sir William Jones, one a "discourse on the Hindus," published in the first volume of the *Researches* (1788), the other a memoir on "the chronology of the Hindus" in the second volume (1790).<sup>1</sup> The conclusions possible on such data as were then available may be judged from the fact, that in these dissertations Sir W Jones "fixes the time of Buddha in the year one thousand and fourteen before the birth of Christ, or two thousand seven hundred and ninety years ago"<sup>2</sup> He was not unconscious, however, of the unsatisfactory character of his sources, for summing up his results he confesses, "that though he has given a sketch of Indian history through the longest period fairly assignable to it, and has traced the foundation of the Indian empire above three thousand eight hundred years from the present time ; still, on a subject in itself so obscure and so much clouded by the fictions of the Brahmans, who, to aggrandize themselves, have designedly raised their antiquity beyond the truth, we must be satisfied with probable conjecture and just reasoning from the best attainable data ; nor can we hope for a system of Indian chronology, to which no objection can be made, unless the astronomical books in Sanskrit shall yield their unexceptional evidence."<sup>3</sup> Shortly afterwards some of this expected astronomical evidence was made available to Sir William Jones. On a careful consideration of it, he came to the conclusion, which he published in 1790 in a supplementary memoir, and which is still substantially correct, "that the dawn of true Indian history appears only three

---

<sup>1</sup> As *Res*, Vol I, p 415, 'The third Anniversary Discourse,' see especially p 425, Vol II, p 111, 'On the Chronology of the Hindus'    <sup>2</sup> *Ibid* Vol I, p 425, Vol. II, p 125    <sup>3</sup> *Ibid*, Vol II, pp 145, 146

or four centuries before the Christian era, the preceding ages being clouded by allegory or fable ”<sup>1</sup>

In those days great results were expected from researches in the astronomical works of the Hindus, with regard to their ancient chronology. These expectations have been only very partially verified; but it was impossible for Sir William Jones, at that time, to foresee the remarkable discoveries that would be made in the antiquities of India and what a flood of light these would throw on its ancient history. Yet he himself was destined, not long afterwards, to announce the first in the long series of historical discoveries—that of the identity of the Indian Chandia Gupta with the Greek Sandracottus. The announcement occurs in his tenth anniversary discourse on “Asiatic History Civil and Natural,” published in 1795 in the fourth volume of the *Researches*.<sup>2</sup> It may be given in his own words. “The jurisprudence of the Hindus and Arabs being the field which I have chosen for my peculiar toil you cannot expect that I should greatly enlarge your collection of historical knowledge, but I may be able to offer you some occasional tribute and I can not help mentioning a discovery which accident threw in my way, though my proofs must be reserved for an essay, which I have destined for the fourth volume of your *Transactions*.<sup>3</sup> To fix the situation of that Palibothra, which was visited and described by Megasthenes, had always appeared a very difficult problem, for though it could not have been Priayaga, nor Canyacubja nor Gau, yet we could not confidently decide that it was Pataliputra, though names and most cir-

---

<sup>1</sup> *As. Res.*, Vol. II p. 189, see especially p. 401.    <sup>2</sup> *Ibid.* Vol. IV, p. 1, see especially p. 11.    <sup>3</sup> This essay was never published. Unfortunately Sir William Jones died on the 27th April 1794, only a year after the announcement of his great discovery.

cumstances nearly correspond, because that renowned capital extended from the confluence of the Sone and the Ganges to the site of Patna, while Palibothra stood at the junction of the Ganges and Erannoboas, which the accurate M. D'Anville had pronounced to be the Yamuna: but this only difficulty was removed, when I found in a classical Sanskrit book near two thousand years old, that *Hiranyabáhu*, or "golden armed," which the Greeks changed into *Erannoboas*, or "the river with a lovely murmur," was in fact another name for the Sona itself, though Megasthenes, from ignorance or inattention, has named them separately. This discovery led to another of greater moment; for Chandra Gupta, who, from a military adventurer, became, like Sandracottus, the sovereign of upper Hindustan, actually fixed the site of his empire at Pataliputra, where he received ambassadors from foreign princes, and was no other than that very Sandracottus who concluded a treaty with Seleucus Nicator."<sup>1</sup> Sir William Jones' important discovery was at once accepted by Captain Francis Wilford, who adduced some further evidence in confirmation of it,<sup>2</sup> and though at first some scholars raised a few objections, mainly geographical, regarding the apparently different positions of the ancient Palibothra and modern Patna, which further enquiries dispelled, the identification was soon universally admitted to be indubitable, and nothing will ever shake its certainty. Its great importance lies in the fact, that it renders it possible to synchronize the history of India with that of Greece at one point; and as the chronology of Greece is well known and quite certain, we thus obtain a date in Indian chronology as a starting point, from which calculations may be made forwards and backwards with some degree of assurance. Sandracottus, namely,

<sup>1</sup> *As Res*, Vol IV, pp 10, 11

<sup>2</sup> *Ibid*, Vol V, p 262

according to Justin, a Greek historian, had seized the throne of India after the prefects of Alexander had been murdered in 317 B C. Seleucus found him as sovereign of India, when after the taking of Babylon and the conquest of the Bactrians, he passed on into India. He did not, however, conquer Sandracottus, but, after concluding a treaty with him, marched on to make war against Antigonus. This must have taken place before the year 312 B. C., as in that year Seleucus had returned to Babylon. The accession of Chandra Gupta must therefore, be placed about 315 B. C., or some time between 317 and 312<sup>1</sup>. This date, then, is the sheet-anchor of Indian chronology. Basing on it, and assisted by Indian chronicles or ancient inscriptions and coins, all calculations referring to the history of ancient India were henceforth made backwards as well as forwards. The more important forward calculations will be noticed further on, of the backward calculations it will suffice to mention here the most important one—that referring to the date of Buddha's death. The most probable date for this event was ultimately ascertained in 1852 by Major (now Major-General) A. Cunningham, to be the year 477 or 478 B. C.<sup>2</sup>

Sir William Jones' identification of Chandra Gupta with Sandracottus had been suggested to him by the notices of that king which he met with in the Hindu Purānas and in a Sanskrit drama, called *Mudrá Rākshasa*, which described his usurpation and coronation<sup>3</sup>. About forty years later, in 1836 and 1837, his discovery received a striking confirmation which the Hon'ble George Turnour was able to produce from the *Buddhistic Annals of Ceylon*<sup>4</sup>. Another item of

<sup>1</sup> See M. Muller's *History of Ancient Sanskrit Literature* pp. 275, 278, 298, 300.

<sup>2</sup> *J. A. S. B.* Vol. XXIII, p. 704, see also Genl. Cunningham's *Corpus Inscr. Ind.*, p. 4.

<sup>3</sup> *As Res.* Vol. IV, p. 6, Vol. V p. 262.

<sup>4</sup> *J. A. S. B.*, Vol. VI, p. 713.



evidence, however, which was produced about the same time and which, if true, would have been of far greater importance, because it would have been absolutely authentic and nearly contemporary, proved, in the course of further research, to be untenable. This is the occurrence of the name of Chandra Gupta in one of the ancient inscriptions on the pillar of Allahabad. It was thought at first by the early decipherers of those inscriptions, Captain A. Troyer and Mr. J. Prinsep, that this Chandra Gupta might be identical with the Chandra Gupta (Sandracottus) of the Maurya race, whose date had been already satisfactorily ascertained<sup>1</sup>. Further enquiry soon showed that this opinion was erroneous; but at the same time it also resulted, as will be shown further on, in a new discovery, which is only second in importance to that of Sandracottus himself.

This happened in the years 1834-1837, the brief period of great historical discoveries, in which the names of the Hon'ble G. Turnour and Mr. J. Prinsep are distinguished above all in the small band of enquirers and scholars who contributed to the great result. About this time the former had commenced a careful study and analysis of the Páli Buddhistical Annals of Ceylon. Some of the results of it he communicated, in a series of memoirs, to the *Journal of the Society*. The first of these memoirs, in the volume for 1836, was called forth by some disparaging remarks on the trustworthiness of Buddhistical as compared with Brahmanical chronology, into which Professor H. H. Wilson and Mr. J. Prinsep had been betrayed<sup>2</sup>. In the course of his reply he showed that the king Asoka of Kashmir, mentioned in the chronicles of that country, was the same Asoka

---

<sup>1</sup> J. A. S. B., Vol. III, pp. 119, 120, Vol. VII, p. 343      <sup>2</sup> *Ibid.*, Vol. V, pp. 525, 536

whom the Buddhist annals relate to have been the grandson of Chandia Gupta of the Mauryan dynasty and to have ascended the throne of Magadha in the year 325 B C<sup>1</sup> A second and third memoir, published in 1837, are devoted to the elucidation of some of the chronological statements and difficulties occurring in those portions of the Buddhist annals which relate the history of Asoka and his dynasty Mr Turnour came to the conclusion that the only way to arrive at an agreement between the dates furnished by these annals and those of Europe was to admit in the former an error of about sixty years—an error which he thought was designedly committed by the Buddhist annalists<sup>2</sup>

In the meanwhile, Mr. J Prinsep had been zealously carrying on his attempts in deciphering the most ancient of the pillar inscriptions at Allahabad, Dehli and other places In these, as already related in the preceding chapter of this Review, he was eminently successful In the Journal for that very year, 1837, he published his first discovery, that those inscriptions professed to have been made by the order of a king Piyadassi, and having failed to identify this king with any prince mentioned in any of the Hindu genealogical tables with which he was acquainted, he suggested that Piyadassi, who called himself “the beloved of the Gods” (*devānam priya*), might be identical with a Ceylonese king, called Deveni Piatissa, who in the Buddhist annals of Ceylon is said to have succeeded his father in B C 307, and to have prevailed on the Indian king, Asoka of Magadha, to introduce Buddhism into that island. He pointed out that his suggestion was in agreement with the date of Asoka, as calculated from that of his grandfather Chandia Gupta, whose date had been determined by

<sup>1</sup> J A S B, Vol V, p 521

<sup>2</sup> *Ibid*, Vol VI, pp 501, 713

Sir William Jones;<sup>1</sup> and that further this proved that the pillars had been erected about three hundred years before the Christian era<sup>2</sup> As he went on, however, deciphering the remainder of Piyadassi's inscriptions, he found reason to mistrust his identification of that king with the Ceylonese prince, and his doubts were converted into certainty when Mr. Turnour communicated to him his discovery that, according to the Buddhist annals, Piyadassi was no one else than the well-known Asoka of Magadha himself, who bore Piyadassi as a surname. Mr. Turnour's discovery Mr. Prinsep lost no time in communicating to the world in the pages of the *Journal* for 1837;<sup>3</sup> and a little later in the same year, Mr. Turnour himself, in the course of two further memoirs which he contributed to the pages of the *Journal*, gave a detailed account of his discovery of the identity of Piyadassi with Asoka in the *Dipavamsa*, a newly discovered ancient Buddhist chronicle; and further confirmed it by the authority of another ancient chronicle, the *Rasavāhinī*<sup>4</sup> In the *Journal* for the following year, 1838, Mr. Turnour pursued his researches into the Buddhist annals of Ceylon, which had yielded such happy results, through three additional memoirs, in one of which he communicated an analysis of the *Dipavamsa*.<sup>5</sup> In the same year, 1838, Mr. J. Prinsep had once more the happiness to announce the third and last of the discoveries connected with the name of king Asoka. It was the synchronism between that king and the kings Antiochus II Theos of Syria and Ptolemy Philadelphos of Egypt, who died in 247 B. C., and with whom Asoka is stated in his inscriptions to have

<sup>1</sup> *J. A. S. B.*, Vol. VI pp 469ff<sup>2</sup> *Ibid.*, pp 566, 567<sup>3</sup> *Ibid.*<sup>4</sup> *Ibid.*, pp 856 and 1050, see especially pp 1054, 1056, see also Vol. VII, p 156<sup>5</sup> *Ibid.*, Vol. VII, pp 686, 789, 919-991

entered into treaty relations.<sup>1</sup> Thus three independent bases had now been found, from which it was possible to calculate the date of king Asoka's reign and fix it with certainty within very narrow limits,—*i e*, most probably from 264 to 223,—<sup>2</sup> a date which fully bore out Mr Turnour's discovery of an error of about sixty years in the Buddhist chronology<sup>3</sup>

The identification of Asoka immediately led to the verification of a third member of the Maurya dynasty, his grandson Dasaratha. The existence of this prince had been doubtful, as in some of the Puranic annals his name was omitted from the list of Maurya sovereigns. But, in 1837, Mr J. Prinsep succeeded in deciphering his name in an inscription occurring in one of the Nágárijuní caves, near Gaya; and as the inscription is engraved in the characters of the time of Asoka and the very surname Devánam priya, which is borne by Asoka himself, is given in it to Dasaratha, there could be no longer any doubt as to the existence and identity of the latter<sup>4</sup>

The discoveries connected with Asoka led to another identification which deserves a passing notice; for though at that time based on a fallacy, it has since been established on much more satisfactory grounds. In one of the inscriptions on the rock of Gurnai, Mr. J Prinsep discovered, in 1838, the name of a king Satakarni, who, as was known from the Hindu genealogical lists belonged to a line of Andhra sovereigns. The exact date of these kings was not known, but in an essay on the kings of Magadha, published in the

<sup>1</sup> J A S B Vol VII, pp 156 (160) and pp 219, 225. At first Mr Prinsep had identified the Antiochus of the inscription with Antiochus the Great (VII, p 160), but afterwards he corrected his mistake (VII, p 225). <sup>2</sup> See General Cunningham's *Corpus Inscr Ind*, pp III-X. <sup>3</sup> See above, p 89. <sup>4</sup> J A S B, Vol VI, pp 676 678, 790, and Vol VII, p 156.



remedied and the barrenness of events changed to abundance. Successful research not only corroborated all that was before imperfectly known but filled up the meagre outline with circumstances and persons of historical truth and importance. The hitherto unnamed or unknown members of successive or synchronous dynasties came now into view as well-defined individuals and in connected order, and revolutions of a religious as well as of a political origin could be discerned if not with all the minuteness one could wish, yet with a distinctness that still demands unquestioning reliance. The means by which these additions to our knowledge of the past were effected were, as already said, the numerous coins which were found within those seven years in Turkistān, Afghānistān and the Panjāb.<sup>1</sup> A large number of zealous collectors and investigators co-operated in the researches. Lieutenant Burnes, General's Court Allard and Ventura, Doctors Gerard, Swiney, Loid and Martin, Honigberger, Shekh Karamat Ali and others.<sup>2</sup> But foremost amongst them all were Mr. James Prinsep, General Cunningham and above all Mr. Masson. The latter "had resided some time in Afghānistān and had been engaged either by himself or in co-operation with a medical officer in the service of Ranjit Singh, Dr. Honigberger in examining the ancient monuments, the topes and tumuli of that country. In the course of these investigations some coins were obtained, but the chief site of Mr. Masson's discoveries was at a place named Beghām." "At an early period of his researches he proposed to the Government of Bombay to transfer his actual and all future collections to the East India Company, on condition of their defraying the cost of

<sup>1</sup> See *Asiatic Antiquary* pp. 2-3.    <sup>2</sup> See *J. A. S. B.*, Vol. II pp. 28, 37, 308, 311, Vol. III, pp. 175, 313, 320, 324, 436, Vol. IV, pp. 327, 328, Vol. V, p. 549, Vol. VII, pp. 637, 1017.

his operations. The proposal was favourably received, and from the year 1834 until 1837 Mr. Masson was sedulously employed in the pursuit, in which he had engaged with equal intelligence and zeal, on behalf and at the expense of the East India Company. In the course of time the collections which he had formed and which included above thirty thousand coins, were transmitted to England and deposited in the Company's museum."<sup>1</sup>

Antecedently to the discoveries made by Mr. Masson and his co-operators, no more than nine kings of Bactriana were known to the learned world. These were Theodotus I and II, Euthydemus, Demetrius, Eukratides, Heliokles, Antimachus, Menander and Apollodotus<sup>2</sup>. The last two had only been discovered a few years previously to 1833, by Colonel Tod, who, during twelve years of his residence in India, had conducted a zealous search after ancient coins, and in that interval had succeeded in accumulating no less than twenty thousand coins of all denominations. He published his discovery of Menander and Apollodotus in the *Transactions of the Royal Asiatic Society for 1824*<sup>3</sup>. In 1833 Mr. Masson's successful operations in Kabul commenced,<sup>4</sup> the results of which he made known in the pages of the *Journal*, in a series of most interesting memoirs. In the very first of these, published in 1834, he was able to announce the discovery of no less than six new Bactrian sovereigns, namely Antialkides, Lysias, Agathocles, Pantaleon, Hermæus and two others whom he called Unadpherras,<sup>5</sup> and Sotereages or Hegas. The latter name was immediately discerned by Mr. Prinsep to be a

---

<sup>1</sup> See *Ariana Antiqua*, pref., p. v, and pp. 10, 11.    <sup>2</sup> *J. A. S. B.*, Vol. II, pp. 37, 315, Vol. III, pp. 155, 156. See also *Ariana Antiqua*, pp. 3, 4.    <sup>3</sup> *J. A. S. B.*, Vol. II, pp. 29, 37. See also *Transaction, R. A. S.*, Vol. I, p. 314, and *Ariana Antiqua*, p. 4.    <sup>4</sup> *J. A. S. B.*, Vol. III, p. 153.    <sup>5</sup> *Ibid.*, pp. 162, 442, and Vol. IV p. 327.

mis-lection for Megas "the Great." and to be the designation of an otherwise unnamed king.<sup>1</sup> One of this king's coins had already been noticed, as early as 1832 and 1833, though not recognized, in the Asiatic Researches and the Journal.<sup>2</sup> The other name Unadpherias was also afterwards corrected by Mr Prinsep to Gondophares.<sup>3</sup> Most of the extensive collections made by Mr. Masson, Lieut Burnes, and others had the good fortune of passing under the experienced eye of Mr J Prinsep in Calcutta, and from time to time, as he made new discoveries they were communicated to the world in successive volumes of the Journal. Thus, in 1835 he announced the discovery of another batch of four new kings: Philoxenes, Azes, Azilises and Vonones.<sup>4</sup> The name of the last, however, was at that time read incorrectly as Nonus; and it may be added that one of his coins as well as three of Azes had been already described, though not recognized, by Mr Masson in his memoir of the preceding year.<sup>5</sup> In 1836, the latter published a second memoir on the ancient coins of Beghram. In this, again three new kings were added to those already discovered,—viz Diomedes and two others,—whose names Mr. Masson read as Adelphoites and Paleikes.<sup>6</sup> In a third memoir, however, published a little later in the same year, 1836, he corrected the second of the two names into Spalirisus,<sup>7</sup> while Mr Prinsep succeeded in finding the true name of the first king to be Spalyrius.<sup>8</sup> Here again, coins of these two kings had been noticed, but not recognized, much earlier; viz Spalyrius in 1830 and Spalirisus

---

<sup>1</sup> J A S B, Vol III, pp 162, 168, Vol IV, 344, 345    <sup>2</sup> As Res, Vol XVII, pp 575—577 (figs 23—25), J A S B, Vol II p 38 (figs 19 20), p 314 (fig 113), p 411 (figs 9, 10)    <sup>3</sup> J A S B, Vol IV, p 346, and Vol VII, p 654    <sup>4</sup> *Ibid*, Vol IV, pp 341-345    <sup>5</sup> *Ibid*, p 342, Vol V, p 25, also Vol III, p 172 (figs 43, 45, 46, 47) See also *Ariana Antiqua*, p 338 (No 2)    <sup>6</sup> J A S B, Vol V, pp 1, 18, 19, 20, 24, and 25, see also p 549    <sup>7</sup> *Ibid*, p 547, see also p 551    <sup>8</sup> *Ibid*, p 551



in 1834.<sup>1</sup> In the same memoir Mr. Masson succeeded in adding one more to his discoveries, viz the king Achelus, or, as his name is now generally accepted to be, Archebius.<sup>2</sup> Only two months afterwards, in November 1836, the list of Bactrian sovereigns was again enriched, through Mr. Prinsep, with two new names, those of a king Amyntas and a queen Agathokleia,<sup>3</sup> and after a pause of nearly two years, in July 1838, one more was added by him, named Abagases (or Abalgases or Abdagases)<sup>4</sup> Again two years later, in 1840, Lieutenant (now Major-General) A. Cunningham brought forward a new king Zoilus:<sup>5</sup> and after an interval of another two years, he had the satisfaction of announcing the discovery of no less than eight new names of Bactrian sovereigns. These were the kings Strato, Telephus, Hippostratus, Pakores, Arsaces, Dionysius, Nikias, and the queen Kalliope<sup>6</sup> With this last successful find the long series of discoveries in the regal history of Bactriana came, in the main, to an end. Only one more addition was made many years afterwards, it was that of a king Plato, who was discovered in 1872 by Mr J. G. Delmerick.<sup>7</sup>

Besides the mere list of sovereigns of Bactriana, the coins afforded much additional information on the political, social, and religious condition of that country. This information was carefully collected by Mr. Masson, Professor Lassen, and Lieutenant A. Cunningham, and published by them in a series of memoirs contributed to the *Journal* during the years 1834 to 1840.<sup>8</sup> It would exceed, how-

<sup>1</sup> J A S B, Vol III, p 172 (fig 44), and Vol IV, p 342 (figs 6, 9). <sup>2</sup> *Ibid*, Vol V, pp 547, 548, see also *Ariana Antiqua*, pp 279, 280 (No 1). <sup>3</sup> J A S B, Vol V, pp 720, 721. <sup>4</sup> *Ibid*, Vol VII, pp 640, 645, 654, see also Vol IX, p 882. <sup>5</sup> *Ibid*, Vol IX, p 871. <sup>6</sup> *Ibid*, Vol XI Part 1, pp 130 135. <sup>7</sup> *Proceedings for 1872*, pp 34, 174. <sup>8</sup> J A S B, Vol III, p 151, Vol V, pp 537, 707, Vol VI, p 57 (Masson), —Vol IX, pp 251, 339, 419, 627, 933 (Lassen, translated by Dr Roer), —Vol IX, 867 (Cunningham)

ever, the proper limits of this Review to enter fully into this subject, which, moreover, in not a few points, is still a matter of doubt and difference, even at the present day. It will suffice to state, that the coins, from their characters, inscriptions, emblems, find-places and various other circumstances, clearly show, that the line of princes discovered through them did not form a continuous succession of sovereigns, but that many of them must have been contemporaneous rulers in a variety of independent Greek principalities, into which the whole of Bactriana was divided; that some of these principalities must have included Afghanistan and the Panjáb, and used the old western Páli—a language closely akin to Sanskrit, that by the side of the worship of Greek and Iranian divinities the Buddhist faith must have been current in the eastern portion of Bactriana; and that the period during which these Bactrian and Indo-Bactrian reigns lasted must have extended from about 250 to 120 before Christ, when they were subverted by an irruption of Scythian tribes from the centre of Asia.

It had long been known from the annals of Kashmir, an account of which was published by Professor H. H. Wilson in 1825 in the *Asiatic Researches*,<sup>1</sup> that, at an ancient period, a dynasty of Turkish or Indo-Scythian princes had conquered and held sway over that country. Three members of the dynasty were especially named—Kamiskha, Hushka and Yashka—whose date was supposed to be the fifth century before the Christian era.<sup>2</sup> It was about ten years later, that Mr J. Prinsep first succeeded in verifying these Indo-Scythic princes and their true dates through their coins. The first specimens of these coins were made known in 1824 by Colonel Tod in the *Transactions of the*

<sup>1</sup> *As Res*, Vol. XV, p. 1      <sup>2</sup> *Ibid*, pp. 23, 24, 91, 92      *J A S B*, Vol. II  
p. 315

Royal Asiatic Society,<sup>1</sup> and a year later, in 1825, by Professor H. H. Wilson in the Asiatic Researches of this Society.<sup>2</sup> They were, however, not fully recognized at that time, and it was not till 1833, when a well-preserved specimen was discovered by Lieutenant Burnes, that Mr Prinsep was first enabled to decipher the name of king Kanishka on it. It is true, the name on the coin reads Kanerkou, but Mr. Prinsep at once recognized it to be merely another form of the well-known Kanishka;<sup>3</sup> and though a year later, in 1834, some mistaken evidence led him and Mr Masson to feel uncertain as to this happy identification,<sup>4</sup> it soon gained the general assent of all numismatists and historians, while in 1845, some new Buddhistic coins of that king enabled Lieutenant A. Cunningham to "afford the last links in the chain of evidence to prove the identity of the Indo-Scythian Kanerki with the Buddhist prince Kanishka of Kashmir"<sup>5</sup> In the same year, 1845, Lieutenant Cunningham also proved that the Indo-Scythian king Oerki or Hoerki, many of whose coins had been found in the meanwhile, was the same as the king Hushka of the Kashmirian annals.<sup>6</sup> The existence of a third Indo-Scythian king, called Kadphises, had been already previously, in 1834, established from his coin by Mr Masson.<sup>7</sup> A careful consideration of the types of the coins of these three kings clearly showed, that they succeeded each other in the following order—Kadphises, Kanerki, Hoerki,<sup>8</sup> and a com-

---

<sup>1</sup> See Transactions, R. A. S., Vol I      <sup>2</sup> As Res., Vol XVII, pp 562-566, 577-583 (figs 1-4 and 26-42)      <sup>3</sup> J. A. S. B., Vol II, pp 314, 315      <sup>4</sup> *Ibid*, Vol III, pp 159, 449      <sup>5</sup> *Ibid*, Vol XIV, pp 430, 440, 441      <sup>6</sup> *Ibid*, p 431, <sup>7</sup> *Ibid*, Vol III, pp 160, 229, 443 At first the name was read wrongly, Mokadphises, by M. R. Rochette and M. Jacquet of Paris, see *ibid*, Vol V, p 553, and Ariana Antiqua, p 354      <sup>8</sup> J. A. S. B., Vol IV, pp 630, 631, Vol XIV, p 441, see Ariana Antiqua, pp 353, 357, 373 At first Mr Masson placed Kadphises after Kanerki, see J. A. S. B., Vol III, pp 173, 174

parison of the coins of Kadphises with those of Hermæus, the last king of the Bactrian kingdom of Nysa, further showed that the latter must have been overthrown by an invasion of the Indo-Scythians under his leadership<sup>1</sup>. A clearly defined progress of imitation and modification traceable through the coins of Hermæus, Kadphises, Kanishka and Hushka left no reasonable doubt on this point, and an additional confirmation was derived from the fact, that the find-spots of the coins pointed to Kabul,—where indeed the tomb of Kadphises was discovered by Dr Martin Honigberger—as the capital of the Indo-Scythian dynasty<sup>2</sup>. Moreover it was possible, from the coins, in combination with historical traditions, to determine approximately the period during which the Indo-Scythian empire lasted, viz., from about the commencement of the first century before Christ when the kingdom of Nysa was conquered, to about the end of the second century after Christ, when the reign of Vasudeva, the successor of Hushka, must have terminated. Indeed, there is every probability that the accession of Kanishka is coincident with the establishment of the celebrated Saka or Scythian era. According to the trustworthy Buddhist tradition of Tibet, Kanishka reigned upwards of 100 years after the death of Buddha. That event is now known to have taken place in 477 or 478 B.C., so that the accession of Kanishka in 78 A.D., the initial year of the Saka era, is quite probable. Calculations approaching this result had been made by MM Prinsep, Masson and Cunningham,<sup>3</sup> though it was reserved for much later researches by Dr R. Mitra and others, founded upon the discoveries of inscriptions of Kanishka and his successor at

---

<sup>1</sup> J. A. S. B., Vol. III, pp. 159, 160    <sup>2</sup> *Ibid.*, pp. 159, 160, 173    <sup>3</sup> *Ibid.*, Vol. II, p. 316, Vol. III, pp. 159, 160, Vol. XIV, p. 441



wards, in 1838, when he discovered that the coins bore dates in an ancient form of numeration and of an unknown era.<sup>1</sup> The subsequent researches of Mr Thomas in 1848 and Mr Newton in 1862 have added no less than fourteen new names, so that the list of Surashtrian kings now consists of twenty-six names, with the modifications necessitated by their discovery.<sup>2</sup> With regard to the date of these kings, Mr Prinsep gave expression to several different, and even contradictory opinions. At one time he ascribed them to a period from the third to the seventh centuries after Christ,<sup>3</sup> at another time, misled by his erroneous view of the great age of the Gunar inscription he thought they might be as old as the time of the great Chandra Gupta in the fourth century B C.<sup>4</sup> By the side of these, however, he also expressed a third view for which he himself produced the strongest evidence and which, being most consistent with all the circumstances of the Surashtrian coins, is now universally accepted as the only correct one. These coins, namely, exhibit the clearest evidence of likeness, on the one hand, with the coins of the later Parthian rulers of Bactriana, especially of those of king Kodes, of which they are unmistakable imitations; on the other hand, with the coins of the Gupta kings of Magadha and Kanauj, of which they are the prototypes.<sup>5</sup> This determines the date of their period as extending from the first century before Christ to the third century after Christ, so that possibly the well-known (so-called) Vikramāditya or Samvat era, which commences in 56 B C, may date from the accession of their dynasty. Another evidence

<sup>1</sup> J A S B, Vol VII pp 318-351.    <sup>2</sup> See Proceedings for 1882 p 42. Mr Newton's paper is in the Journal, Bom As Soc Vol VII, p 30, and Mr Thomas', in the Journal, Royal Asiatic Society, Vol XII, p 32, and in Dr Burgess' Archaeological Survey of Western India, Vol I, p 44.    <sup>3</sup> J A S B, Vol VI, pp 385, 386.

<sup>4</sup> *Ibid* p 388, and Vol VII, pp 343, 345, 347.    <sup>5</sup> *Ibid*, Vol IV, pp 684, 685, Vol VI p 589, see also Vol XXIV, p 501.

to the same effect is derived from the form of the characters of the coin-legends. which is less ancient than that of the Asoka alphabet, while it is older than that of the Gupta characters<sup>1</sup> Once again, their title Kshatrapa, which is the same as the Persian Satrap, brings them in immediate contact with the later Bactrian-Greek or Parthian kings in the second and first centuries before Christ.<sup>2</sup>

The numismatic researches which were so zealously and successfully conducted in those early years helped to verify, as contemporaries of the Indo-Scythian and Surashtrian sovereigns, another class of Indian rulers, some of whom, unlike the Surashtrian kings, were distinctly recorded in the Puranic chronicles of India These were the various dynasties known by the names of the Mitras or Sungas, the Dattas, the Devas, the Kunandas, the Nāgas and others Most of them had one common characteristic—that their coins bore various sorts of Buddhist symbols This circumstance by itself indicated that they might be safely ascribed to that period of Indian history during which Buddhism held most undisputed sway over the political and social life of the people, in the centuries immediately before and after Christ<sup>3</sup> To Mr. Prinsep and the earliest collectors who so abundantly supplied him with their newly found treasures, these coins were very obscure, nor have subsequent researches sufficed to remove all the obscurity attaching to them But so much Mr. Prinsep clearly discerned from the character of their emblems, the ancient form of their letters, and their more or less close resemblance to the

later Bactrian coinage, that they were to be ascribed to a very early date,<sup>1</sup> and that they were Buddhistic<sup>2</sup> His opinion as to their character and age is sufficiently indicated by the names he gave them—Indo-Bactrian or Buddhist Satrap coins, &c.<sup>3</sup> Subsequently three distinct divisions among these early Hindu or Buddhist coins have had some more light thrown on them, in consequence of further discoveries of coins. These are the coinages of the Buddhist Satraps, the Nágas, and the Mitras. On the two first mentioned, Major (now Major-General) A. Cunningham contributed two memoirs to the pages of the *Journal* of 1854 and 1865.<sup>4</sup> Of the so-called Buddhist Satraps he verified three members of a dynasty, which he identified with those of a Maurya dynasty of Dehli, mentioned in the Hindu genealogies.<sup>5</sup> At the same time, on account of the style of the Greek letters, and the types which are imitated from those of the later Bactrian kings, he fixed the date of these Satraps to have been the first century before the Christian era.<sup>6</sup> In his memoir of 1865, Major Cunningham verified a dynasty of nine Nága princes, who, to judge from the character of their coins, must have been contemporary with the well-known Guptas in the first and second centuries of the Christian era, and who are all recorded in the Puranic annals of India.<sup>7</sup> Regarding the Mitra dynasty, which is also recorded in the Puranic annals, no more information was received till nearly the close of the century. In 1879, a large number of coins of that dynasty were discovered near Rámanagar, which enabled Mr. A. C. Carlleyle, in

---

<sup>1</sup> J. A. S. B., Vol. III, pp. 227, 228, 435, Vol. IV, pp. 621, 627, 628, 689, Vol. VI, p. 463, Vol. VII, p. 1052.    <sup>2</sup> *Ibid.*, Vol. IV, pp. 625, 628, Vol. VI, pp. 463, 465.    <sup>3</sup> *Ibid.*, Vol. VII, pp. 1051, 1052.    <sup>4</sup> *Ibid.*, Vol. XXIII, p. 679, Vol. XXXIV, p. 115.    <sup>5</sup> *Ibid.*, Vol. XXIII, pp. 681, 683.    <sup>6</sup> *Ibid.*, p. 681, see also Vol. XXIV, p. 396.    <sup>7</sup> *Ibid.*, Vol. XXXIV, pp. 116, 118, 119, 120.



two memoirs, published in the *Journal* of 1880,<sup>1</sup> to make an attempt to arrange the Mitra princes provisionally in an order of succession, consisting of fourteen members,<sup>2</sup> and to refer their date to a period from the second century before Christ to the second century after Christ.<sup>3</sup>

To return to the period of Mr. Prinsep's activity, his successful decipherment, in conjunction with Captain Troyer, Dr. Mill and others, of the ancient pillar and rock inscriptions in 1834 to 1836 has been already related in a preceding chapter. That decipherment led to a discovery hardly less important for the history of India than that of the date of the great Chandra Gupta, half a century before, by Sir William Jones.

Early in 1834, Captain Troyer, who had succeeded in partially deciphering the second of the inscriptions on the pillar at Allahabad, noticed that it contained the names of four generations of princes, called Gupta. These names he thought were Chandra Gupta, Yagnakacha, Chandra Gupta, and Samudra Gupta; and the first named Chandra Gupta, he suggested, though doubtfully, might be the same as the great Sandracottus of the fourth century B. C.<sup>4</sup> Two months later, in May 1834, the Revd Dr Mill, who had subjected the inscription to a careful re-examination, discovered that the first two names had been misread by Captain Troyer, and should be Gupta and Ghatotkacha, respectively. He also showed that the suggested identification of Chandra Gupta was open to too serious objections to be accepted. He pointed out that the letters of the inscription were of a comparatively too modern form to suit the early date of Sandracottus,

---

<sup>1</sup> J A S B Vol XLIX, pp 21, 87. See also *Proceedings for 1880*, pp 7, 92  
 - J A S B, Vol XLIX pp 23, 28      <sup>2</sup> *Ibid*, p 89 *Proceedings for 1880*,  
 p 92      <sup>4</sup> J A S B, Vol III, pp 119, 120, Vol V, p 644

that the names of the Gupta dynasty discovered on the pillar were entirely different from those of the Maurya dynasty recorded in the Puranic genealogies, and that, moreover, the Gupta kings were said in the inscriptions to belong to the Solar race of Indian sovereigns, while in the Purānas the Mauryas were classed as members of the Lunar race<sup>1</sup> In a later communication to the Journal, he added a fourth objection based on the difference of religion professed by the Guptas and Mauryas respectively, the former being worshippers of Siva, while the latter were followers of Buddha,<sup>2</sup> and though the Hon'ble George Turnour and Mr Prinsep showed that one of these objections,—that referring to the difference of race,—was not unsurmountable,<sup>3</sup> Dr Mill's rejection of the proposed identification was then, and is now, universally assented to

In default of this reluctantly dismissed identification, various others were at first attempted, though not with any greater success Both Dr Mill and Mr Prinsep carefully searched through the traditional genealogies of the numerous Rajput dynasties of the middle ages, but without succeeding in finding any names that would allow of identification with the Guptas of the inscription<sup>4</sup> The more so, as both the possibility and difficulty of an identification had, in the meanwhile, been greatly increased by the successful decipherment in 1837 of another ancient pillar inscription at Bhitari, which enabled both Mr. Prinsep and Dr Mill to add three further names, those of Chandia Gupta II, Kumāra Gupta and

---

<sup>1</sup> J A S B Vol III pp 259, 266 267 Curiously enough, Dr Mill himself appears to have overlooked that he also corrected Capt Troyer's Chandra Gupta I into Gupta, see p 253, but the original erroneous reading rests also on the evidence of Mr Prinsep see Vol III, p 115    <sup>2</sup> J A S B, Vol VI, pp 9, 15

<sup>3</sup> *Ibid*, pp 15, 275    <sup>4</sup> *Ibid*, Vol III, pp 339, Vol IV, 639

Skanda Gupta (besides an unnamed infant successor of the last) to the list of Guptas already known from the Allahabad pillar.<sup>1</sup> To this it may be added, that in the following year, 1838, Mr. Prinsep was able, from the pillar inscription at Eran, to add one more name to the list, Buddha Gupta (perhaps the unnamed infant of the Bhitari pillar), who must have succeeded Skanda Gupta and with whom the list of the Gupta dynasty now consisted of eight names.<sup>2</sup> The discovery of these additional names led Dr. Mill to turn to the Puranic records, which mention a Gupta dynasty as reigning in the kingdom of Magadha. He proposed as a "far more plausible hypothesis" that these Guptas of the Purānas might be the same as the Guptas of the pillar inscription; and on this hypothesis he calculated that their date "could scarcely be fixed higher than the age of Charlemagne in Europe" in the ninth century of our era.<sup>3</sup> This identification with the Puranic Guptas had already previously in 1836 been suggested by Mr. Prinsep, who, however, feeling the incongruity of the assignment of such a late date to the Guptas, was rightly inclined to adopt the other alternative of "carrying back the chronology of the Purānas a few centuries."<sup>4</sup>

At this point, a very important light was thrown on the question of the true date of the Gupta dynasty, by the

---

<sup>1</sup> J. A. S. B., Vol. V, p. 611, Vol. VI, pp. 7, 8.    <sup>2</sup> *Ibid.*, Vol. VII, p. 632. Two more names have since been noted, *viz.*, Nara Gupta and Bakra Gupta. Of these the former may be the same as Buddha Gupta, while the latter is probably an erroneous reading for Chandra Gupta. See Dr. Burgess' *Archæological Survey of Western India*, Vol. I, pp. 39, 63, and General Cunningham's *Archæological Survey Reports*, Vol. IX, p. 23.    <sup>3</sup> J. A. S. B., Vol. VI, pp. 9, 10, 12.    <sup>4</sup> *Ibid.*, Vol. V, p. 611. The same feeling, it may be here mentioned, induced Mr. Prinsep about the same time to suggest the identification of Chandra Gupta with a prince Chandra Kanta in the 5th century A. D., mentioned in a Chinese account of India, see Vol. VI, pp. 65, 97. This suggestion was not followed up any further.

numismatic enquiries which had been, proceeding *pari passu* with the examination of the inscriptions. A curious kind of early Hindu coins, inscribed with letters in an ancient form of Nāgarī and exhibiting striking resemblances to the Indo-Scythian coinage, had been observed as early as 1821, when Col Tod published some in the Transactions of the Royal Asiatic Society<sup>1</sup> Others were made known in 1825 by Professor Wilson in the Asiatic Researches, and in 1833 by Mr J Prinsep, in the Journal.<sup>2</sup> Their ascription was, however not recognized till the following year, 1834, when both Mr Prinsep and Dr. Mill observed that they bore not only the same type of letters as those on the second Allahabad inscription, but actually the same names, Ghatotkacha, Chandra Gupta and Samudra Gupta<sup>3</sup> In the following year, 1835, their observation was fully confirmed by the discovery, on other similar coins, of the remainder of the Gupta names known from the Bhitari inscription, Kumāra Gupta and Skanda Gupta<sup>4</sup> It was evident, therefore, that the Guptas of the coins belonged to the same dynasty of princes as that which had caused the pillar inscriptions to be set up<sup>5</sup>

Among the coins there were some which bore the name of Mahendra Gupta It was thought by Mr Prinsep, that then discovery added to the list of the dynasty a new name, not mentioned in any inscription<sup>6</sup> His opinion was

<sup>1</sup> *Ariana Antiqua*, pp 5, 6 Similar coins had been first discovered in 1783 near Calcutta on the bank of the Hooghly <sup>2</sup> *As Res*, Vol XVII, pp 566, 568, 570-574 (figs 5, 7, 12, 13, 14, 16-19), *J A S B*, Vol II, pp 412-415 (fig 15), see also *J A S B*, Vol III, p 620, editorial note. <sup>3</sup> *J A S B*, Vol III, pp 231, 267, 268 (see also p 268 foot note), 620, see also Vol IV, pp 634, 637, 642 <sup>4</sup> *J A S B*, Vol IV, pp 634-643, Vol V, p 644 <sup>5</sup> *Ibid*, Vol III, p 268, Vol IV, p 611 <sup>6</sup> *Ibid*, Vol V, p 644 In Vol IV, p 643, Mr Prinsep gives a list of 13 members of the dynasty, many of whom, however, have since proved to be the same persons

long accepted as correct by every one,<sup>1</sup> but latterly it has been abandoned as untenable, it having been found that the appellation Mahendra Gupta was only another name of Kumára Gupta.<sup>2</sup>

All the coins hitherto examined had been of gold. The Gupta kings, however, possessed also a silver currency. Specimens of these silver coins had been published by Mr. Prinsep as early as 1834 and 1835.<sup>3</sup> On account of their striking resemblance to the Satrap coins of Suráshtra, they seem, at first, to have been looked upon as a variety of that class of coins. Gradually, however, as the legends on them were deciphered, it was found that they bore the names of some of the now well-known kings of the Gupta dynasty, and it was evident that they were simply the silver division of the Gupta currency. The names noticed on these silver coins were those of the later kings, Chandra Gupta II, Kumára Gupta, Skanda Gupta and Buddha Gupta. No name of an earlier king was ever met with. At length in 1835 the whole subject of the Gupta mintages, including both their gold and silver currencies, was reviewed by Mr. E. Thomas in a memoir published in the twenty fourth volume of the *Journal*, in which he gathered together and summed up all the numismatic information on the Guptas available at that time.<sup>4</sup>

The careful examination of the Gupta mintages established

<sup>1</sup> So in 1855, by Mr. E. Thomas, in *J. A. S. B.*, Vol. XXIV, pp. 383, 485; see also Prof. H. H. Wilson in *Ariana Antiqua*, p. 420, in 1841, and Lassen in his *Indian Antiquities*, Vol. II, p. 971. <sup>2</sup> *J. A. S. B.* Vol. XXX, p. 146, see also General Cunningham's *Bhilsa Topes*, p. 141, Mr. E. Thomas's edition of Prinsep's *Indian Antiquities*, Vol. I, p. 276, and the same in Dr. Burgess' *Archæological Survey of Western India*, Vol. I, p. 70. <sup>3</sup> *J. A. S. B.*, Vol. III, p. 230 (fig. 20), Vol. IV, p. 687 (figs. 10-12). <sup>4</sup> *Ibid.*, Vol. XXIV, p. 483. A later summary in 1876, by the same author, is included in Dr. Burgess' *Archæological Survey of Western India*, Vol. I, p. 18.

two points of great historic importance, the extent of their empire and the date of their rule Dr Mill first suggested, in 1834, that the capital of the Gupta dynasty must have been Kanauj, on the ground that they were, as he fallaciously thought, "a branch of the Solar family" As an other, and a much better founded reason he referred to the fact, that their gold coins were most frequently found in the ruins of that ancient town<sup>1</sup> On the latter ground his suggestion was generally accepted until latterly, when it has been shown that their capital lay probably much lower down the Ganges, in Magadha proper, on the site of modern Patna or ancient Pataliputra. Mr Prinsep, with the rest, adopted Dr Mill's suggestion regarding the kingdom of the Guptas at Kanauj,<sup>2</sup> but from the types and the find-spots of their silver coins, in Ujjain, Suráshtra and other places, he concluded that, though their capital was at Kanauj, the empire must have included a very large portion of North India, from Magadha in the East to the Suráshtra province in the West<sup>3</sup> Further researches, bringing out other, and in some respects more trustworthy evidence, have since confirmed Mr Prinsep's conclusions, and shown that the Gupta empire, at one time, under Chandra Gupta II, must have had an almost as wide extent as that of the Mauryas at their best time, under Asoka

With regard to the date of their empire, the evidence of the coins and of the inscriptions coincided and was conclusive. The characters on the coins as well as on the inscription, it was at once observed, were of the same type, and that, a very ancient one ; indeed, if any thing, those on the silver coins were rather more ancient than those

<sup>1</sup> J. A. S. B., Vol. III, p. 267

<sup>2</sup> *Ibid.*, Vol. IV, p. 640, Vol. VI, p. 975

<sup>3</sup> *Ibid.*, Vol. IV, pp. 640, 641, Vol. VI, p. 975

on the gold currency.<sup>1</sup> From a comparison of this type of letters with the more modern Kutila characters of the twelfth century after Christ, and with the more ancient alphabet employed by Asoka in the third century before Christ, Mr. Prinsep drew the conclusion that the Gupta characters may be placed about midway in the third or fourth century of our era.<sup>2</sup> This conclusion was confirmed by the coins in a remarkable way. While on the one hand the gold coins of the Guptas exhibited a striking resemblance to those of the great Indo-Scythian sovereigns, their silver coins showed an even more unmistakable likeness with the silver currency of the Satrap rulers of Suráshtia on the one side, and that of the Valabhi kings on the other. It was evident, therefore, that, on the testimony of their coins, the Guptas must have followed the Indo-Scythians and the Satraps, and must have preceded the Valabhis.<sup>3</sup> The date of the accession of the last mentioned rulers of Valabhi in Gujarat was accurately known to be the year 319 A.D. For that date, according to the trustworthy statement of the Arab historian Al-Biruni, was the initial year of their own era, which commenced with their accession to the throne. On the other hand, there were, as has been previously shown, good reasons for fixing the termination of the rule of the Indo-Scythians and the Satraps somewhere towards the end of the second century after Christ.<sup>4</sup> Moreover, from the number

<sup>1</sup> & were known, it could be calculated with much probability that their rule must have filled a space in Indian Antiquity of nearly two centuries. It followed from all the

considerations that the period of the Gupta empire must be fixed within the limits reaching from a little after the middle of the second century up to the year 319 A. D. The final year being already accurately known, it only remained for future researches to determine, if possible, the initial year of the Gupta rule

It must not be supposed that all this information was the result of the earliest researches of Mr Prinsep and his coadjutors. They only generally fixed the age of the Guptas to be the third and fourth centuries after Christ<sup>1</sup> The terminal date, the year 319 A D, was first determined by Mr. E Thomas, in 1848, in a memoir on the dynasty of the Sah kings of Suráshtra, which was published in the Journal of the Royal Asiatic Society His determination was based on certain passages of the Arab historian, Abu Rihan Al-Biruni, which had been translated and published by Mr Renaud.<sup>2</sup> It is true, it was at first strongly contested by Major A Cunningham, Mr J Feigusson and others, who attempted to establish that the Guptas were contemporaneous with the Valabhis, and reigned between the second and fifth or sixth centuries after Christ.<sup>3</sup> But the incongruity of this opinion with the clear evidence of the inscriptions and coins could not fail to assert itself in the course of time,<sup>4</sup> and the terminal date of the Gupta empire as determined by Mr Thomas may now be considered as one of those great historical landmarks, the truth of which is admittedly no more open to question

<sup>1</sup> J A S B, Vol VI, p 566    <sup>2</sup> *Ibid*, Vol XXIV, pp 371, 375 See Journal, R A S, Vol XII, p 32    <sup>3</sup> J A S B, Vol XVII, p 488, Vol XXIV, p 375 See Major A Cunningham's Bhilsa Topes, p 138, and Mr Fergusson in Journal, R A S, Vol IV, p 108, Lassen's Indian Antiquities, Vol. II, p 751, Vol III, pp 652, 659, 660, quoted in J A S B, Vol XXX, pp 140, 143    <sup>4</sup> J A S B, Vol XXX, pp 145, 146, 149 Proceedings for 1875, p 45



The determination of the initial date of the Gupta empire was a matter of much greater difficulty. It was observed very early that the Gupta kings were in the habit of employing a certain era, in which they date many of their inscriptions and coins. Thus Mr. Prinsep, in 1837, discovered that Chandra Gupta II's inscription on the Sanchi Tope bore a figured date, though he was unable to read it fully.<sup>1</sup> It was afterwards deciphered to be 93. In 1838 he discovered and partially read a series of figured dates on the Surashtrian silver coins,<sup>2</sup> and in the same year he found that the inscription on a pillar at Eran stated that it was erected in the 165th year, during the reign of Buddha Gupta. In this case, there was no difficulty in reading the date, as it was expressed in words.<sup>3</sup> There were other difficulties, however, in the record, which led to its re-examination, in 1861, by Mr Fitz Edward Hall,<sup>4</sup> who confidently, though no less erroneously, announced that by the date of the inscription he had determined that Buddha Gupta was reigning "in the year of our Lord one hundred and eight, new style."<sup>5</sup> A further date, recorded likewise in words, on the Kuhaon pillar, was also read by Mr. Prinsep in 1838; but he read it wrongly as 133 dating from the decease of Skanda Gupta.<sup>6</sup> It was partially corrected in 1861 by Mr. Fitz Edward Hall, who read it as 141, dating from the overthrow of Skanda's Gupta empire.<sup>7</sup> But it remained for Dr. R. Mitra, in 1874, to point out the true reading, that it was the year 141, dating in the Gupta era itself<sup>8</sup> At the same time

---

<sup>1</sup> J A S B, Vol VI, pp 452, 457 See also Vol. VII, p 349 <sup>2</sup> *Ibid*, Vol VII, p 348. <sup>3</sup> *Ibid*, pp 632, 634 <sup>4</sup> *Ibid*, Vol XXX, pp 14, 139  
<sup>5</sup> *Ibid*, pp 15, 139, 148 An earlier reference to this inscription by Mr Thomas occurs in *ibid*, Vol XXIV, p 515 Mr Fitz Edward Hall's papers led to an acrimonious controversy between him and Babu R Mitra, *ibid*, Vol. XXX, p 267, Vol XXXIV, p 58 <sup>6</sup> J A S B, Vol VII, pp 37, 31 <sup>7</sup> *Ibid*, Vol XXX, p 3 <sup>8</sup> *Ibid*, Vol XLIII, p 365

he published a newly found inscription of the same Skanda Gupta, dated in the year 116 of the Gupta era<sup>1</sup> Some years previously, in 1861, Mr Fitz Edward Hall had published two land grants of a king Hastin, which were dated in the years 156 and 163 of the Gupta era<sup>2</sup> Thus a considerable number of dates, all reckoned in the era of the Gupta kings, was gradually accumulated It seemed possible by careful examination and combination of them, to calculate, with some degree of certainty, what the initial date of the Gupta era might have been At first it was supposed that the so-called era of the Guptas might prove to be the same as the well-known Saka era This was the opinion of Dr R Mitra, the Hon'ble E C Bayley and others<sup>3</sup> But in 1880, Major-General A Cunningham, who had at first himself inclined to the Saka theory, showed after a renewed and very carefully conducted examination of all the given dates and other evidences, that that theory was untenable, and that, in all probability, the initial year of the Gupta era was 166 A D, being the year of the accession of Chandra Gupta I<sup>4</sup> This view, or some modification of it, has every promise of ultimately meeting with universal assent, and being the final verdict of the historic researches, regarding the Gupta dynasty, continued through exactly one half of the century

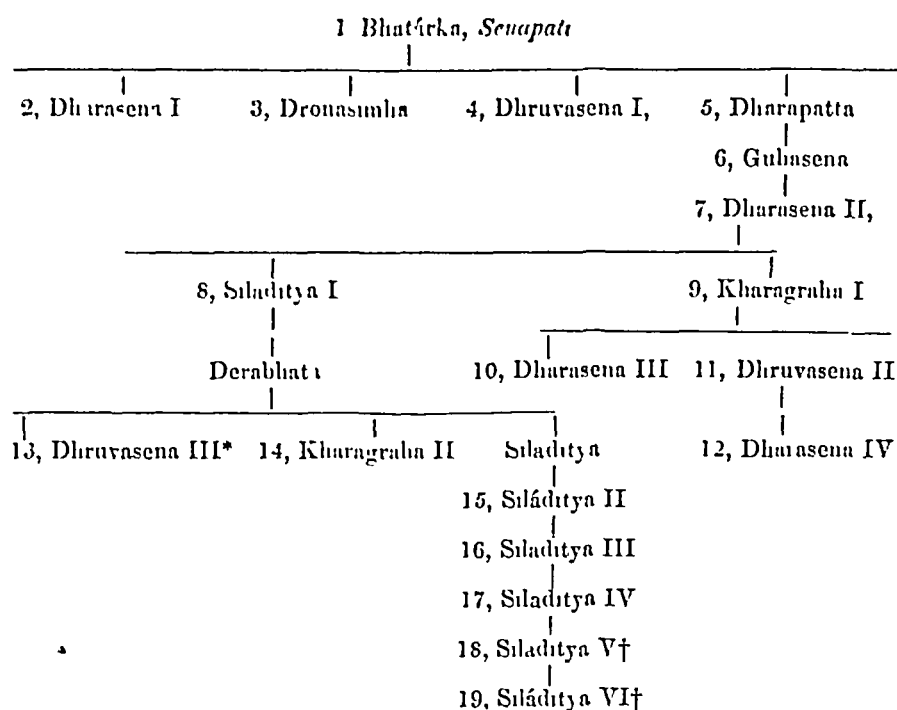
The investigation into the chronology of the Gupta kings, as has been already mentioned incidentally, was most intimately connected with the identification of another

<sup>1</sup> J A S B, Vol XLIII p 363 Proceedings for 1865 p 45    <sup>2</sup> J A S B, Vol XXX p. 1 A further date, the year 82 during Chandra Gupta II's reign, was published by Major A Cunningham, in *Bhilsa Topes* p 151, also the dates 191 and 209 of the Gupta era, in his *Archæological Survey Reports* Vol IX, pp 13, 15

<sup>3</sup> J A S B Vol XLIII p 372 Proceedings for 1875 pp 45 46    <sup>4</sup> See General A Cunningham's *Archæological Survey Reports*, Vol X, Appendix.



editors) added one more name from a third copperplate, discovered by Dr A Burns at Kaira<sup>1</sup> Quite recently in 1877 and 1878 two further names have been discovered by Dr G Buhler, which at present complete the list of Valabhi rulers and bring it up to the number of nineteen.<sup>2</sup> That list, as it stands now, is the following, the order of succession is indicated by numbers; the unnumbered individuals do not appear to have reigned; those marked with \* and † were added by Mr Prinsep and Dr. Buhler, respectively.



Mr Wathen pointed out that it appeared from the terms of the land grants of these Valabhi rulers, that the two earliest members of the dynasty held only the position of a

<sup>1</sup> J A S B, Vol VII, p 966  
Vol VII p 80

<sup>2</sup> See Indian Antiquary, Vol VI p 17,



177<sup>1</sup> On reconsidering the question in 1838, Mr Prinsep came to the conclusion that the Valabhi dates must refer to the Vikramáditya Samvat, the initial year of which is B. C. 56. His reasons were, that the grants themselves did not name the Valabhi Samvat, and that hence the mere word *samvat* should, as usual, signify the samvat or era of Vikramáditya. Moreover, as his revised readings of the dates of the grants showed them to be of the third and fourth centuries, Mr Prinsep seems to have thought, that, if calculated on the Valabhi era, they would bring the date of the Valabhi rulers much lower down than could be fairly assigned to them on other considerations.<sup>2</sup> Ten years later, on a renewed reconsideration of the question, in 1848, Mr. Thomas proposed to refer the Valabhi dates to the Saka era.<sup>3</sup> He was followed in this opinion by Dr Bhandari in 1868,<sup>4</sup> and by Professor Bhandarkar, in 1872.<sup>5</sup> The main reasons were, that at the period of the Valabhi land grants the Saka era was known to have been used in other records; that the same era was used by the Satrap dynasty of Suráshtra, and that, therefore it was most probable, that the Valabhi dynasty which superseded that of the Satraps, continued the use of the era which had been current under their predecessors.<sup>6</sup> Three years later, however, in 1875, Dr G. Buhler proved from a newly found land grant, that the theory of the Valabhi grants being dated in the Saka era was untenable.<sup>7</sup> Another step in advance was made in 1878, when Dr Buhler discovered from another newly recovered Valabhi land grant

<sup>1</sup> J A S B Vol IV, pp 478, 497 See Indian Antiquary Vol VII, p 80

<sup>2</sup> J A. S B, Vol VII, pp 354, 367, 368 <sup>3</sup> See Journal, R A S Vol XII

<sup>4</sup> See Journal, Bombay Branch R A S, Vol VIII, pp 232, 233 <sup>5</sup> See Indian Antiquary, Vol I, pp 45, 61 He abandoned this opinion two years later, see Vol III, p 304 <sup>6</sup> See Indian Antiquities, Vol. I, p 61 <sup>7</sup> See Indian Antiquary, Vol. IV, p 167

that Silāditya VI, the last in the present list, also bore the name of Dhruvabhata, under which name, as M Eugene Jaquet had already pointed out more than forty years ago in 1836, that king was known to the Chinese traveller Hwentsang, when he visited him not long after A D. 639<sup>1</sup> The conclusion was inevitable that, as Silāditya VI's grant was dated 447, the initial year of the era of the plates must fall either shortly before or shortly after the year 200 A.D.<sup>2</sup> It has been stated previously,<sup>3</sup> that about this very time the investigation into the chronology of the Gupta dynasty had led to the conclusion, that the initial year of the Gupta era must be A D. 166, or some year between that date and A D 200. On the whole, therefore, the opinion has the greatest probability in its favour, that the era in which the Valabhi plates are dated is the Gupta era, the use of which was naturally continued by the Valabhi rulers, after the fall of the Guptas under whom for a time they had been sub-kings. It is certain that the rule of the Valabhis embraces a period of at least two hundred and forty years. divisible among eleven generations, because the oldest known grant of Dhruvasena is dated 207, while the latest of Silāditya VI bears date 447. And it is in every way most probable that the period of the whole dynasty runs from the end of the second to the middle of the seventh century after Christ.

The close of the rule of the Valabhis carries us already well into the middle ages of Indian history. During those ages India was divided into a considerable number of principalities, of more or less extent and importance, and ruled by a variety of dynastic races which entertained the most changing relations to one another, sometimes of peace sometimes of war, and generally of varying interdependence.

<sup>1</sup> J. A. S. B. Vol. V pp 685, 687

<sup>2</sup> See *Indian Antiquary*, Vol. VII pp 80, 81.

<sup>3</sup> See page 113

Foremost amongst them, commencing in the west of India, are the Brahmanic rulers of Kabul and the Panjáb, the Utpala dynasty of Kashmir, the Mahárijas of Kángia, the Chauháns of Ajmir and Dehli, the Pramaras of Malwa, the Kachwáhas of Gwalior, the Chandel princes of Mahoba, the Rathor house of Kanauj, the Pála kings of Bihár and Bengal, and the Sena dynasty of Bengal. The main and only trustworthy source of information on the history of these races and dynasties and their mutual relations to one another are their inscriptions and their coins. The long genealogical lists of their members, which are preserved in chronicles and in the epics of bards, are only of subordinate and doubtful value. Though the diligent researches carried on through the whole of the century, with the help of those materials, have succeeded in reducing to some sort of order the confused and conflicting history of India's middle ages, there still remain many obscurities and discrepancies to be cleared away before that history can be said to be satisfactorily established. The Asiatic Society of Bengal contributed its share to those researches: nor was it a small one, at least with regard to four dynasties already named, the Rathors and their predecessors in Kanauj, the Chandels of Mahoba, and the Pálas and Senas of Bengal. With respect to the others, the contributions of the Society were much smaller, consisting rather in the supply of materials, than in establishing historical deductions from them, an operation which was left to the successful researches of other individuals and societies.

The kingdom of Kanauj was one of the first among the Hindu principalities of the middle ages to attract the attention of the Society through a copper land grant discovered about 1807. It was brought to the notice of Mr. H. T. Colebrooke, who published a translation in the *Asiatic Researches*.



It proved to be a grant, dated A. D. 1164, of Rāja Vijaya Chandra of Kanauj, the father of Rāja Jaya Chandra, who was already known from the *An-i-Akbari* to have lost his kingdom in the Muhammadan conquest of A. D. 1193. It also gave the whole ancestry of Rāja Vijaya Chandra extending to six generations.<sup>1</sup> In 1825 Professor H. H. Wilson published another grant from Captain E. Fell's collection. This time it was a grant of Rāja Jaya Chandra himself, dated A. D. 1177, and from it Professor Wilson was able to correct the first name of the Rāja's ancestry, Yasovigraha, which, on the previous occasion, had been misread as Sri-pāla.<sup>2</sup> The family whose genealogy consisting of seven generations had thus been recovered, belonged to the Rathor race of Rajputs, and the discovery of its true ancestry was all the more valuable, as the traditional one, known from Colonel Tod's *Annals of Rajasthan*,<sup>3</sup> differed entirely from it.<sup>4</sup> The truth of the ancestry, as given in the contemporary land grants, could, of course, not be questioned, but it was curiously confirmed by the discovery of coins, on which some of the names of the newly found Rathor line could be deciphered. These coins were found in great abundance, especially in the vicinity of the site of ancient Kanauj, but they were never noticed nor recognized till 1832, when Professor H. H. Wilson described and delineated two coins of Rāja Govinda Chandra, the grandfather of Jaya Chandra, in the *Asiatic Researches*.<sup>5</sup> Three years later, in 1835, Mr. Prinsep not only confirmed Professor H. H. Wilson's discovery, but succeeded in verify-

---

<sup>1</sup> As Res., Vol. IX, pp. 400, 441. See also the reprint *Miscellaneous Essays*, Vol. II, p. 253. Mr. Colebrooke erroneously identified Vijaya Chandra with his son Jaya Chandra. <sup>2</sup> As Res., Vol. XV, pp. 446, 453, 460, 461. <sup>3</sup> See *Annals and Antiquities of Rajasthan*, Vol. II, pp. 5-7 (pp. 4, 5 in the 2nd edition). See also As Res., Vol. XV, p. 461, J. A. S. B., Vol. III, pp. 339, 340. <sup>4</sup> J. A. S. B., Vol. III, pp. 263, 341, Vol. IV, pp. 369, 392, 642, 669, 670. <sup>5</sup> As Res., Vol. XVII, p. 585 (figs. 48, 50).

ing another name, that of Sri Chandra Deva himself. He also pointed out, that the ascription of these coins to the Rathor Rájās of Kanauj agreed with the comparatively very modern form of the Nágari characters of their legends.<sup>1</sup> Subsequently to 1835, many more land grants of the Rathor princes have been discovered, every one of them confirming the genealogy already known from the earlier found grants. Thus in 1811, a grant of Jaya Chandra, of A. D. 1187, was published by Mr H. Torrens,<sup>2</sup> and in 1858, two grants, one dated A. D. 1125, of Govinda Chandra, the other, dated A. D. 1097, of Madanapála, the grandfather and great grandfather, respectively, of Jaya Chandra, were made known by Mr FitzEdward Hall.<sup>3</sup> All the later finds having been already fully noticed in an earlier portion of this Review,<sup>4</sup> there is no need of mentioning any of them here, except one of Govinda Chandra, published by Babu Rájendralála Mitra in 1873,<sup>5</sup> which fully confirmed an observation already previously made by Mr Colebrooke, Professor H. H. Wilson and others,<sup>6</sup> that the two first members of the line, Yasovigraha and Mahi Chandra, were not kings of Kanauj, but that the third, Sri Chandra having conquered Kanauj, became its first king of the Rathor house. From the same inscription it also appeared, that the last member of the preceding dynasty was a certain Rája Bhoja after whose death a period of disturbance ensued under a certain Rája Sri Karlla, and that during this period the Rathor prince Sri Chandra possessed himself of the

<sup>1</sup> J. A. S. B. Vol. IV, pp. 668-670 (figs. 7-8). The coins have Ajaya Chandra, which may signify as Mr Prinsep thought Jaya Chandra but more probably the first king Sri Chandra, who is called 'Vijaya' in the inscription of 1873, see J. A. S. B. Vol. XLII pp. 321-322. <sup>2</sup> *Ibid.*, Vol. X, p. 98. <sup>3</sup> *Ibid.*, Vol. XXVII, p. 217. <sup>4</sup> See above, Chapter I. <sup>5</sup> J. A. S. B., Vol. XLII pp. 314, 322. A counterpart of this inscription, dated A.D. 1111, and found at Ráhan in the Ltawā district, was published by Dr. Mitra in the Proceedings for 1876, p. 130. <sup>6</sup> As Res., Vol. IX, p. 441, Vol. XV, pp. 461, 462. J. A. S. B., Vol. XXVII, p. 218.

throne of Kanauj as the first of his dynasty of kings<sup>1</sup> With the help supplied by all these land grants it was possible to fix accurately the period of the rule of the Rathor house of Kanauj as having extended from about A. D. 1050 to the year 1193<sup>2</sup>

Between this period and that of the Gupta dynasty of Kanauj, the termination of which was known to have occurred about the middle of the fourth century of our era, there was a long gap of about eleven centuries.<sup>3</sup> It was very improbable that the renowned kingdom of Kanauj should have been in abeyance during this long period, yet for a long time no information was forthcoming which could afford any means of filling up the mysterious break in its history. It is true, it was known as early as 1825, through the researches of Professor H H Wilson in Sanskrit literature, that two kings, named Yasovarman and Sahasanka, reigned in Kanauj about the middle of the eighth and tenth centuries respectively.<sup>4</sup> Afterwards the researches of Mr FitzEdward Hall, which were confirmed from the journal of the Chinese traveller Hwen-thsang, made known three members of a dynasty, Piabhákara, Rájya and Harsha, who were kings of Kanauj in the first half of the seventh century.<sup>5</sup> But these instances, isolated as they were, left untouched nearly one half of the chasm referred to above. It was not till 1862 that the history of this portion of the gap was supplied by Mr. FitzEdward Hall from a land

---

<sup>1</sup> The opening lines of this inscription have been misunderstood. The Vijaya, or 'Victorious King,' of verse 2, is Sri Chandra Deva himself. He is said to be the son of Mahála (or Mahipála), another name of Mahi Chandra (see J A S B Vol IV, p 670, and to have belonged to the Rajput race of Gaharwálas, who are of the same family as the Rathors (see Elliot's Races of the N W Provinces of India, Vol I, p 121). <sup>2</sup> J A S B, Vol XXVII, p 218, Vol XXXI, p 8, Vol XXXIII, p 232. <sup>3</sup> *Ibid.*, Vol III p 339, Vol IV p 640. <sup>4</sup> *As Re-* Vol XV, pp 45, 86, 463. J A S B Vol III pp 268 339, Vol XXXI, pp 9, 10. <sup>5</sup> *Ibid.*, Vol XXXI, p 2, Vol XXXIII, p 231.

grant which had been published by Babu Rájendralála Mitra as early as 1848, but the attribution of which had not been recognized<sup>1</sup> This inscription names a dynasty of Mahodaya or Kanauj, consisting of eight individuals<sup>2</sup> Two years later, in 1864, Major A Cunningham succeeded, with the help of another already known, but hitherto imperfectly read, inscription from Gwalior,<sup>3</sup> in determining the period of the rule of the newly found dynasty as extending from about the middle of the eighth to the middle of the tenth centuries<sup>4</sup> This determination established a fairly continuous history of the kingdom of Kanauj from the eighth to the twelfth century, the only obscurity that has remained being the exact connection between the two dynasties whose rule fell within that period<sup>5</sup>

Contemporaneously with the later kingdom of Kanauj there flourished a smaller kingdom at Mahoba, in the modern Bundelkhand, the rulers of which belonged to the Rajput clan of Chandels It was first brought to the notice of the Society in 1813, when Lieutenant William Price found a large inscribed stone on a rocky hill in the vicinity of the town of Mau, about ten miles from Chattarpur, on which he noticed a Sanskrit inscription containing a genealogy of an unknown line of Hindu princes A copy of this record he published in the Asiatic Researches Unfortunately it was in a very mutilated condition, but what remained proved to contain the history of ten princes, with the names of their ministers<sup>6</sup> It was not known at the time who these princes were, but from the comparatively very modern type of its characters and from the

---

<sup>1</sup> J A S B Vol XVII, p 71    <sup>2</sup> *Ibid*, Vol XXXI, p 5    <sup>3</sup> *Ibid*, Vol XXII, p 673, Vol XXXII p 97    <sup>4</sup> *Ibid*, Vol XXXIII, p 229 See also Vol XXXII, p 96    <sup>5</sup> See Appendix I    <sup>6</sup> As Res, Vol XII, p 357, see also J A S B, Vol XXXII, p 275, Vol XLVII, pp 73, 74



recorded in these inscriptions was that of the Chandel princes, who founded the town of Mahoba<sup>1</sup>. At the same time he was able to construct mainly from the dates supplied by their inscriptions a trustworthy chronological order of their succession which showed that the period of the rule of the Chandel dynasty extended from the beginning of the ninth to the end of the twelfth century<sup>2</sup> beginning with Nimika and ending with Paramardi Deva, who was defeated and expelled from Mahoba by Rāja Prithvirāj of Delhi in A. D. 1182. General Cunningham's deductions on the history and chronology of the dynasty were afterwards in 1879 and 1881 verified and in some points revised, by Mr V. A. Smith who especially added whatever few and indistinct notices could be discovered of Rāja Paramardi's obscure successors preceding the rise of the Bundel power in the fourteenth century<sup>3</sup>.

A third kingdom contemporary with those of Mahoba and Kanauj, was that of Gaur in Bengal, ruled by a dynasty bearing the family name of Pāla. This was the earliest of the kingdoms of the Indian middle ages, of which any notice occurs in the *Transactions of the Society*. As early as 1780, Mr Charles Wilkins discovered in the vicinity of the town of Buddal an inscription engraved on a monumental stone pillar. He succeeded in translating it in 1785, and his translation was published in 1788 in the first volume of the *Asiatic Researches*<sup>4</sup>. It was found to record three members of the Pāla dynasty which was then stated

<sup>1</sup> See General Cunningham's *Archæological Reports*, Vol. II p. 448. <sup>2</sup> See *Ibid.* p. 451. The Chandel chronology has also been discussed by Dr R. Mitra in 1863 and 1878, but partially on erroneous data, see *J. A. S. B.*, Vol. XXXII p. 276, Vol. XLVII, p. 74. <sup>3</sup> *J. A. S. B.* Vol. XLVIII p. 285, Vol. L, p. 1. <sup>4</sup> *As Res.*, Vol. I p. 131. The text and a revised translation by Babu Pratapa Chandra Ghosh are published in the *J. A. S. B.*, Vol. XLIII, p. 356.

to be reigning in Gaur or Bengal. The first of them, Deva Pála, was also stated to have made wide conquests in the South and West of India. About the same time, Mr. Wilkins discovered in the ruins of Mungír a copper land grant, a translation of which he also published, in 1788, in the same volume of the *Researches*.<sup>1</sup> This grant was also found to record three kings of the Pála dynasty, the last of whom, Deva Pála, whose conquests in the South and West of India were again prominently mentioned, was the same as the first in the list of the pillar inscription. It was noted also in this grant, that Deva Pála professed the Buddhist faith. The grant bore the date 33, which really referred to Deva Pála's reign, but which was misinterpreted by Mr. Wilkins as referring to the Vikramáditya era and thus placing the early Pálas in the first century before Christ. This error was afterwards rectified by Mr. H. T. Colebrooke, on the evidence of a third inscription discovered in 1794, in the ruins of Sárnáth, near Benares, and published by Mr. Jonathan Duncan in 1798.<sup>2</sup> This inscription not only added a new name, Mahi Pála, to the list already known, but also supplied his date Samvat 1083 equal to A. D. 1027, —the only chronological evidence hitherto come to light for fixing the true time of the Pála dynasty. A few years later, in 1807, Mr. H. T. Colebrooke made known another copper land grant, found in 1806 at Amgachhi, in the Dinájpur district of Northern Bengal. Unfortunately, this inscription was in a too mutilated condition to allow of a perfectly trustworthy translation. But it appeared to mention, in addition to the list already known, a few new names, among which that of Mahi Pála also occurred. The date of the latter being known from the Sárnáth inscription, Mr. Colebrooke

<sup>1</sup> *As Res.*, Vol. I, p. 123. See also *J. A. S. B.*, Vol. XLVII, p. 385. <sup>2</sup> *As Res.*, Vol. V, p. 131.

fixed the eighth or ninth century of our era as the probable time of the earlier Pálas,<sup>1</sup> a result which was, some years later, in 1825, endorsed by Professor H H Wilson<sup>2</sup> In 1835 the existence of king Mahā Pála was further confirmed by the discovery of one of his coins, which was published by Mr J Prinsep in the Journal<sup>3</sup> Still later, in 1848, the discovery by Captain M Kitto of a fifth inscription at Pesse-rawa verified the existence of Deva Pála, who is incidentally mentioned in it<sup>4</sup> In 1872, the exertions of Mr. A M Broadley brought to light a considerable number of very small dedicatory inscriptions, which not only confirmed all the names already known, but added the names of a few more princes of the Pála dynasty These latter must have reigned subsequently to Mahā Pála, as was shown by one of their inscriptions being dated A D 1175<sup>5</sup> The information which had thus gradually accumulated from all these inscriptions, enabled Major-General A Cunningham in 1873 to construct a chronological table of the Pála dynasty, according to which it appeared to have ruled from about the middle of the eighth to nearly the end of the twelfth century.<sup>6</sup> The discovery at Bhágalpur of a new inscription of Náráyana Pála, which was published by Dr Rajendralála Mitra in 1878, afforded the latter the occasion of a reconsideration of the Pála chronology, the result of which was a reduction of the period of the Pála rule by nearly a hundred years, the

---

<sup>1</sup> As Res, Vol IX p 434, see also pp 203ff, where Capt F Wilford, misled by the untrustworthy traditional lists, altogether confuses the chronology of the Pálas Professor Wilson in As Res, Vol XV p 464, corrects him  
<sup>2</sup> *Ibid* Vol XV pp 464, 465    <sup>3</sup> J A S B, Vol IV, pp 669, 670 (fig 5) See also General Cunningham's Archaeological Reports Vol XI, pp 176, 177 where also coins of Vīrgha Pála are published    <sup>4</sup> J A S B Vol XVII p 492    <sup>5</sup> *Ibid*, Vol XLI p 209, see especially pp 309-311 Some of these inscriptions, however, appear to have been known previously see General Cunningham's Archaeological Reports Vol XI    <sup>6</sup> See his Archaeological Survey Reports, Vol III p 134, see also Vol XI, p 181, where the period is reduced by 50 years at its beginning



founder of the dynasty, Go Pála being placed in the middle of the ninth century.<sup>1</sup> There is still not a little obscurity attaching to the Pála chronology, and further research will probably show that a further reduction of about fifty years will have to be made, bringing the founder of the dynasty down to the commencement of the 10th century.<sup>2</sup>

It was well known that between the Pála dynasty of Bengal and its conquest by the Muhammadans intervened a line of rulers which bore the family name of Sena. Certain Muhammadan histories, the *Ain-i-Akbari* and others, had recorded what professed to be chronological lists of the Bengal kings of the Sena dynasty. But these could not be considered altogether trustworthy, seeing that they differed among themselves. It was in 1838 that the first reliable evidence was obtained through the discovery in Baquirganj of a copper land grant of one of the dynasty, Kesava Sena, which Mr. J. Prinsep published in the *Journal* of that year.<sup>3</sup> This grant verified the existence of five members of the dynasty, ascending from Kesava Sena to Vijaya Sena,<sup>4</sup> the reputed first Bengal king of the Sena family. About thirty years later, in 1865, a stone inscription was found in the Rájsháhí district, which carried the family list back for three more generations. It was translated by Mr. C. T. Metcalfe, and published by Babu Rájendralála Mitra in the *Journal*.<sup>5</sup> On examination it proved to record Vijaya Sena and three of his ancestors, among whom a certain Víra Sena was named as the founder of the family. In 1875, a third inscription, found in the Dinájpúr district and published by Mr. E. V. Westmacott strikingly confirmed the

---

<sup>1</sup> J. A. S. B. Vol. XLVII, p. 354      <sup>2</sup> See Appendix II      <sup>3</sup> J. A. S. B. Vol. VII, p. 40      <sup>4</sup> It actually recorded only four names but that of the fifth, Mádhava Sena was shown by Mr. Prinsep to have stood in it originally      <sup>5</sup> J. A. S. B., Vol. XXXIV, p. 123

evidence of the two previously discovered inscriptions. It was a land-grant of Lakshmana Sena, and recorded four names, two of which, Vijaya and Hemanta, occurred in the Rājshāhī inscription, while three of them, Vijaya, Ballāla and Lakshmana, were in the Bhāgalpur grant. The evidence thus accumulated not only showed that the Vijaya Sena of the two first inscriptions was the same person and the father of the well-known Ballāla Sena, but also that the joint regal and pre-regal lines of Senas as far as Kesava Sena consisted of seven members. The whole subject of the history and chronology of the Sena dynasty was carefully examined by Dr. Rājendralāla Mitra in two papers contributed to the *Journal* in 1865 and 1878<sup>1</sup>. In the course of his enquiry he showed that the Sena family did not belong as is now commonly believed, to the vaidya or medical caste, but that they were, as distinctly stated in their own inscriptions, members of the kshatriya or military caste. He also proved that Vijaya Sena was the same as Sukha Sena mentioned in the Muhammadan histories as the father of Ballāla Sena and first Sena king of Bengal, that the Lakhmaniya, mentioned in the same histories as reigning at the time of the Muhammadan conquest, was the successor of Kesava Sena, and that the traditional Adisena, who introduced the five Brahmans and Kayasths into Bengal, was probably identical with Vīra Sena,<sup>2</sup> the founder of the family. But the most important point which he was successful in establishing was the fact of the existence of an era, called after Lakshmana, and dating from A. D. 1106, the year of his accession. The mere fact of the existence of such an era had been already indistinctly

---

<sup>1</sup> J. A. S. B., Vol. XXXIV, p. 128, Vol. XLVII p. 396      <sup>2</sup> Rather with Vijaya Sena, the founder of the regal portion of the family, see Appendix II

unknown or conflicting dates; such as the limits of the reigns of Fakhruddín Mubárah Sháh, Násiruddín Mahmúd Sháh I, Sikandar Sháh II, Saifuddín Fírúz Sháh II and others<sup>1</sup> The general results of his chronological researches into the history of the independent Sultans of Bengal he exhibited in a comparative table, showing the names and dates of twenty-four Sultans, as reported in the Muhammadan histories and as determined by the inscriptions and coins of the Sultans themselves. The period of their collective rule was thus shown to cover exactly two centuries, from A. H. 739 to 944,<sup>2</sup> or A. D. 1338 to 1537.

So far those portions of the history of India have been noticed, in the investigation and establishment of which the Asiatic Society took a more prominent and extended part. It has been already mentioned, however, that there are many other portions of Indian history with respect to which the Society, at least, collected or supplemented materials for the prosecution of the researches of others enjoying better opportunities or a larger amount of leisure. To this category belong the genealogical tables published in 1835, by Mr. J. Prinsep, in the fourth volume of the *Journal*<sup>3</sup> In the same volume he also made known a number of coins of the Hindu rulers of Kabul and of the Chohán and other Rajput princes, which were afterwards found to throw much light on the history of those dynasties<sup>4</sup> In the following year, 1836, he made known a few coins of the Mahárájas of Kashmir. Though he pointed out their similarity to the earlier Indo-Scythian coins of the so-called Ardokro type, he

<sup>1</sup> J. A. S. B., Vol. XLII, pp. 252, 269, 281, 287      <sup>2</sup> *Ibid.*, pp. 308, 310

<sup>3</sup> *Ibid.*, Vol. IV, Appendix      <sup>4</sup> *Ibid.*, p. 674 See Mr. E. Thomas' and Sir E. Clive Bayley's papers on the Hindu kings of Kabul in the *Numismatic Chronicle* See also J. A. S. B., Vol. IV, p. 367, for the Shekarati inscription published by Dr. Mill and referring to the Choháns

did not recognize their true attribution.<sup>1</sup> This was done some years afterwards, in 1813, by General A. Cunningham.<sup>2</sup> Some more information was added by Mr C. J. Rodgers, in 1879, in the pages of the *Journal*.<sup>3</sup> Considerable help on this subject was rendered by Professor H. H. Wilson in 1825, and Lieutenant D. J. F. Newall in 1854, by publishing memoirs in the *Asiatic Researches* and the *Journal on the Hindu and Muhammadan history of Kashmir*.<sup>4</sup> In 1836 and 1838 Mr L. Wilkinson published two copper land-grants of the Piamara Rájás of Malwa, which helped to adjust the order of succession of those princes.<sup>5</sup> In 1837 Mr J. Prinsep published several coins of Buddhist Rájás of Ceylon, from which he was able to verify several of the royal names recorded in the Buddhist chronicles of that island and made known through the investigations of the Hon ble G. Tunnou.<sup>6</sup> In the same year Captain W. H. Sleeman contributed a short memoir on the history of the Garha Mandala Rájás.<sup>7</sup> In the *Journal* for 1845 there followed an account of the early Abdalís by Major R. Leech,<sup>8</sup> and in 1850 and 1851 two memoirs by Dr A. Sprenger on the Ghassanite kings and the chronology of Mekkah and the Hijaz before Muhammad<sup>9</sup>—all based on Muhammadan histories. In 1863 Babu Rájendralála Mitra, in a paper on “Vestiges of the Kings of Gwalior,” made known some inscriptions of the Kachwáha princes of that country.<sup>10</sup> The volumes for 1878 and 1879 contain a native chronicle of the Bangash Nawabs of Furrakhabad, translated

<sup>1</sup> J. A. S. B., Vol. V, p. 651.    <sup>2</sup> See the *Numismatic Chronicle* on the Coinage of Kashmir.    <sup>3</sup> J. A. S. B., Vol. XLVIII, pp. 277-282.    <sup>4</sup> *As. Res.*, Vol. XV, p. 1, and J. A. S. B., Vol. XXIII, p. 409.    <sup>5</sup> J. A. S. B., Vol. V, p. 377, Vol. VII, p. 736.    <sup>6</sup> *Ibid.*, Vol. VI, p. 298, see also p. 378.    <sup>7</sup> *Ibid.*, p. 622.    <sup>8</sup> *Ibid.*, Vol. XIV, p. 445.    <sup>9</sup> *Ibid.*, Vol. XIX, p. 469, Vol. XX, p. 349.    <sup>10</sup> *Ibid.*, Vol. XXXI, p. 391.

by Mr. Irvine.<sup>1</sup> In 1880 Mr. C. J. Rodgers published a few coins of the Mahārājas of Kāngra, throwing further light on the history of those princes, which had been already investigated by General A. Cunningham in his *Archæological Reports* <sup>2</sup>

Other contributions have more the character of biographies. To these belong the notices on the life of Buddha, published in 1836 in the *Asiatic Researches* by the well-known traveller, M. Alexander Csoma Korosi, from Tibetan authorities <sup>3</sup> The *Journal* of the same year contains a memoir by Mr. Johannes Avdall on the life and writings of S. Nerses Clajensis, surnamed the Graceful, Pontiff of Armenia;<sup>4</sup> and in the *Journal* for 1838 there is a brief account by Munshi Mohan Lal of the origin of the Daud Putias, and of the power and birth of Bahawal Khan, their chief, on the Ghara and Indus.<sup>5</sup>

The *Transactions* of the Society also contain a number of monographs, on the history of various countries in India or nearly connected with India. The object of the authors was to reproduce, for the purposes of further investigation whatever there appeared to be valuable in the native chronicles and annals of those countries. The help afforded by these contributions has, in several cases, proved invaluable. Particularly was this the case with regard to Professor H. H. Wilson's Essay on the history of Kashmir, which has been already mentioned in connection with the Kashmir coins,<sup>6</sup> and Mr. A. Stirling's account, geographical, statistical and historical, of Orissa Proper or Cuttack.<sup>7</sup> The latter memoir was partly based on a native chronicle,

---

<sup>1</sup> J. A. S. B., Vol. XLVII, p. 259, and Vol. XLVIII, p. 48      <sup>2</sup> *Ibid.*, Vol. XLIX, p. 10. See *Archæological Reports*, Vol. V, p. 155      <sup>3</sup> *As. Res.*, Vol. XX, p. 245  
<sup>4</sup> J. A. S. B., Vol. V, p. 129      <sup>5</sup> *Ibid.*, Vol. VII, p. 27      <sup>6</sup> *As. Res.*, Vol. XV, p. 1  
<sup>7</sup> *Ibid.*, p. 163

a translation of which by Mr A Stirling was published, after his death, in the Journal of 1837<sup>1</sup> On the history of Arakan, and of the countries of Further India generally, there are a considerable number of contributions, *viz* in 1828, a historical and statistical sketch of Arakan, by Mr Charles Paton,<sup>2</sup> in 1835, a history of Naning in the Malay Peninsula, by Lieut J T Newbold,<sup>3</sup> in 1837, a history of Labong, from the native records, by Dr D Richardson,<sup>4</sup> and some account of the wars between Buimah and China from Burmese documents, by Lieutenant-Colonel H Burney<sup>5</sup> Later, the history of Arakan was again made the subject of much careful investigation by Major-General Sir Arthur P. Phayre, who published his results in a series of papers and memoirs contributed to the Journal<sup>6</sup> These are . in 1841. an account of Arakan, in 1844, a history of Arakan, in 1864, 1868 and 1869, a history of the Burma race; in 1873 and 1874, a history of Pegu He also published in 1846 some coins of Arakan in illustration of his researches on its history;<sup>7</sup> the same was done by Lieut Thomas Latta in the same year,<sup>8</sup> by Captain (now Colonel) G E Fyfe in 1872,<sup>9</sup> and by Dr Rájendrálala Mitra in 1880<sup>10</sup> Some information on the ancient history of Ásám is contained in Captain G E Westmacott's description of ancient temples and ruins at Chaidwai, published in 1835;<sup>11</sup> and on that of Kúch Bihar in Dr Buchanan's account of Rangpur<sup>12</sup> On the history of both Kúch Bihar and Ásám, Mr H Blochmann published a memoir in 1872, based on the Akbarnámah,

---

<sup>1</sup> J A S B, Vol VI p 756    <sup>2</sup> As Res, Vol XVI, p 353    <sup>3</sup> J A S B, Vol IV, p 297    <sup>4</sup> *Ibid* Vol VI p 55    <sup>5</sup> *Ibid* pp 121 405 542    <sup>6</sup> *Ibid*, Vol X p 679, Vol XIII p 23, Vol XXXIII p 1 Vol XXXVII, p 74, Vol XXXVIII, p 29, Vol. XLII, pp 23 120, Vol. XLIII p 6    <sup>7</sup> *Ibid*, Vol XV, p 232    <sup>8</sup> *Ibid* p 238    <sup>9</sup> *Ibid* Vol XLI p 201    <sup>10</sup> Proceedings for 1880, p 53    <sup>11</sup> J A S B Vol IV, p 185    <sup>12</sup> *Ibid*, Vol VII, p 1

Padishahnámah and the Fathiyah-i-'Ibriyah.<sup>1</sup> The early history of Sindh, as related in the Chachnámah and other Persian authorities, was treated by Lieutenant Postans in several papers inserted in the Journals for 1838, 1841 and 1845.<sup>2</sup> On the history of South India from 1564-1687 there is a memoir by Colonel Mackenzie in 1844,<sup>3</sup> and in 1872 a short paper by Mr. T. W. Rhys David on the conquest of South India by Parákrama Bahu, the great king of Ceylon.<sup>4</sup> On the origion of the Afghan people Lieut. (now Major) H. G. Raverty contributed some remarks in 1854.<sup>5</sup> In the volume for 1871 there is a history of the Gakkhars, one of the Panjáb clans, by Mr. J. G. Delmerick.<sup>6</sup> The volumes for 1881 and 1882 contain a series of contributions on the history, religion, etc., of Thibet from Babu Sarat Chandra Das.<sup>7</sup>

---

<sup>1</sup> J A S B, Vol. XLI, p 49      <sup>2</sup> *Ibid*, Vol. VII, p 93, Vol. X, pp 183, 267, Vol. XIV, pp 75, 155      <sup>3</sup> *Ibid*, Vol. XIII, pp 421, 578      <sup>4</sup> *Ibid*, Vol. XLI, p 197      <sup>5</sup> *Ibid*, Vol. XXIII, p 550      <sup>6</sup> *Ibid*, Vol. XL, p 67.      <sup>7</sup> *Ibid*, Vol. L, pp 187, 206, 211, 235, Vol. LI, pp 1, 15, 53, 58, 87, 99, 115, 121

## CHAPTER V.

## LANGUAGE AND LITERATURE

[Sanskrit — Prakrit, Pali — Gaudian Sindhi, Panjabi, Kashmiri, Hindi and Urdu, Bihari, Bengali, Gipsy, — Indo-Aryan Kaffiri, Brahui, Baluchi, Pashtu, Chilas, Dardi, Galchah — Aboriginal Dravidian, Kolarian, Tibeto-Birman, Indo-Chinese, Malayan — Arabic — Persian — General ]

Next to the classical countries of Greece and Rome, there is none which has rendered more important services to the science of Philology than India. It has presented that science, both, with a new classical literature, almost unbounded in its wealth, and with a new system which by its comparative method has gone far to revolutionize the science altogether. It has achieved this great result through its ancient language, the Sanskrit ; and it has fallen to the proud lot of the Asiatic Society of Bengal to contribute the first step to its accomplishment.

It is now nearly one hundred years ago, that, in 1789, Sir William Jones, the founder of the Society, published his translation of the Sanskrit drama, the *Sakuntalá*. Of that work it may fairly be said that it was the starting point of Sanskrit philology.<sup>1</sup> At the same time, feeling how useful it would be to the learned and essential to the student and translator, he elaborated and published in 1788, in the first volume of the *Researches*, a system of transcribing Asiatic, and especially Sanskrit, words into Roman letters, in which he aimed at securing the double advantage of rendering Asiatic words letter for letter,

<sup>1</sup> See Professor Max Müller's *History of Ancient Sanskrit Literature*, p 1



while preserving their correct pronunciation.<sup>1</sup> His system, still known as the Jonesian, prevailed for a long time till it was superseded by others, which only excelled it by following out its principles in a simpler and more consistent manner.<sup>2</sup>

Having thus fairly started Sanskrit philology on its way, the Society was unable for some time to take any very active share in the further prosecution of its study. The opportunities and qualifications for such a task were much more abundantly present in Europe, and there were many other objects, natural and literary, connected with India, which more directly engaged the Society's attention and admitted of more easy investigation. Nevertheless, it did what lay in its power to further the study of Sanskrit and the publication of its literature. In 1806, it instituted the *Bibliotheca Asiatica*, in which it was intended "to publish, from time to time, as their funds would admit of it, translations of short works in the Sanskrit and other Asiatic languages, or extracts and descriptive accounts of books of greater length in those languages"<sup>3</sup> To this series of oriental publications contributions were invited from every quarter. For many years no response was made to the Society's invitations, and it was not until the year 1847 that it became possible to make an actual beginning of the series, under a new name and in a considerably modified form. In this series, which now received the name of the *Bibliotheca Indica*, it was intended to publish the texts, and, as far as practicable, translations of such oriental works as those of which manuscripts had become rare, or which, from the nature

---

<sup>1</sup> As Res, Vol I, p 1    <sup>2</sup> See J A S B, Vol III, p 281, and Proceedings for 1867, p 80.    <sup>3</sup> As Res, Vol XII, Appendix, p vii

of their subject-matter, could not be expected to be published by private enterprise.

The first work, the publication of which was taken into contemplation, was an edition of the whole of the Vedas ; and an actual commencement was made in 1847 of the preparation of the Rig Veda Samhitá, under the editorship of Dr Roer.<sup>1</sup> But as only a few months afterwards it became known "that the Court of Directors had sanctioned the immediate publication of the Rig Veda in London, to be edited by Professor Max Muller, with a translation by Professor Wilson," the Society's edition was at once abandoned in favour of that now well-known great edition,<sup>2</sup> and in its place it was resolved to publish an edition of the Upanishads, or the philosophical parts of the Vedas.<sup>3</sup> Their publication was entrusted to Dr Roer, who commenced the series in 1849, with an edition of the text of eleven Upanishads,—*viz*, the Aitareya, the Brihad Aranyaka, Taittiráya, Isa, Katha, Svetásvatara, Chhándogya, Kena, the Prasna, Mundaka, and Mandukya.<sup>4</sup> The first named of these Upanishads belonged to the Rig Veda; the next five to the Yajur Veda, the following two to the Sáma Veda, and the last three to the Atharva Veda. Their text was accompanied with the commentary (or bháshya) of Sankara Achárya and the gloss (or tika) of Anandagiri in every case, except the Svetásvatara, of which Anandagiri's gloss could not be obtained. In the case of the Mandukya the explanation (or káriká) of Gaudapada was also given in addition to the other commentaries. All these Upanishads had been published before by others in a more

---

<sup>1</sup> J. A. S. B., Vol. XVI, pp 496, 505, 1259    <sup>2</sup> *Ibid* pp 1090, 1267    <sup>3</sup> *Ibid*, p 1268    <sup>4</sup> For a full statement of the titles &c, of these and all other editions of the Bibliotheca Indica referred to in the following pages, see Appendix C to the Historical Part of the Centenary Review



kaia Ananda Two other Upanishads of the Atharva Veda are the Nṛsimha Tāpanī and the Gopāla Tāpanī, both of which were published in 1870, the first by Pandit Rāmamīya Tarkuātna, with the commentary of Sankara Achārya; the other by Pandits Hara Chandia Vidyābhūshana and Visvanātha Sastri, with the commentary of Visvesvara

Originally the Upanishads had their place in the Aranyakas and Brāhmanas. Several works belonging to the latter two classes of Vedic literature were edited in the Bibliotheca Indica. The publication of the Taittīya Brāhmaṇa of the Yajur Veda, with the commentary (or bhāṣya) of Savana Achārya, was commenced by Babu Rājendralāla Mitra in 1855, and that of the Taittīya Aranyaka of the same Veda in 1864. In the introduction to the latter edition he gave a complete analysis of the work in English, and the table of contents noticed the subjects of the mantras *seriatim*. In 1869, Pandit Ananda Chandia Vedāntavāgīśa followed with the publication of the Tāndya Mahābrāhmaṇa, the largest and most important of the Sāma Veda, containing the earliest speculations on the origin, nature, and purport of a number of Hindu sacrifices, rites, and ceremonies, and interspersed with a variety of anecdotes of great interest. In the following year, 1870, the publication of the Gopatha Brāhmaṇa, the only extant one of the Atharva Veda, was entrusted to Pandit Hara Chandia Vidyābhūshana, who edited about one-half of it, and after his death, to Babu Rājendralāla Mitra, who completed it and added a very full analytical introduction. Unfortunately, no manuscripts of any commentary being available, it was only possible to publish the text<sup>1</sup>

<sup>1</sup> Proceedings for 1872, p. 14, see also Introduction to the Gopatha, p. 38



form in which they appeared, not Sámas but Rig verses " In the edition of the Society "the Rig collection was adopted as the basis, and to every verse of it were added all the various transformations which it had undergone in changing from the Rig to the Sáma, including all the musical notations, as also the commentary of Sayana on the text Thus, practically, the Society's edition comprised six different works,—namely, the *Aichika*, the four *Gánas*, and the commentary of Sayana, and the bulk of the edition was necessarily greatly increased thereby ; but it was hoped that it would afford to oriental scholars the most complete edition of the *Sáma Samhitá* The plan adopted disturbed, in some places, the order in which the *Gánas* appear, in their respective collections, but this was unavoidable. To remedy the defect full indexes were supplied at the beginning of each volume " "The manuscripts used, all belonged to the North Indian recension, with prosodical marks differing in some respects from those which are current in Southern India, but the principal peculiarity, being the use of figures instead of letters to indicate the notes of the Gamut, is not of much importance " <sup>1</sup>

Next to the Vedas, the Vedángas, or the sciences subsidiary to them, claimed the greatest attention. These include phonology, grammar, prosody, glossary, rituals, and astronomy ; the most important being the rituals or 'sútras.' They form a sort of exegesis of the Vedas, and it is impossible to understand the Vedic Mantas, and the most ancient laws, customs, and domestic rites of the Hindus without a careful study of these works The attention of the Society was, therefore, early directed to collect materials for their publication <sup>2</sup> This necessarily

<sup>1</sup> Proceedings for 1877, p 35, for 1879, p 26

<sup>2</sup> *Ibid* for 1872, pp 14, 15

occupied considerable time ; and it was not before 1864 that a commencement could be made with the Sûtras or ritual works. These consists of two different classes, the Śrauta Sûtras and the Grihya Sûtras, treating of sacrificial and domestic ritual respectively. In 1864, the publication of the Śrauta Sûtras of Asvalāyana, belonging to the Rig Veda, was taken in hand by Pandit Rāma Nārāyana Vidyāratna ; and in 1866, that of the Grihya Sûtra of the same author and the same Veda, by Pandit Ananda Chandra Vedāntavāgīśa. The editors added to the text of both Sûtras the commentary of Gaṅga Nārāyana, as well as elaborate indexes composed in Sanskrit by themselves<sup>1</sup> The second of the two editors continued his labours in 1870, by the publication of the Śrauta Sûtra of Lātyāyana, belonging to the Sāma Veda, to which he similarly added both the commentary (or bhāṣya) of Agnisvāmin and an index of his own. In the following year, 1871, an edition was undertaken by Pandit Chandra Kānta Tarkālankāra, of the Gobhilīya Grihya Sûtra of the Sāma Veda, to which he added several appendixes (or pañśishtas) containing the Śāddhakalpa, Sandhivā Sûtra, and Śnāna Sûtra of Gobhila himself, and the Grihya Saṅgraha of a son of Gobhila.<sup>2</sup> The commentary which the editor published with the text, he had compiled himself with the aid of two defective MSS. and the glosses on the Sûtras of his Appendixes.<sup>3</sup> Ten years later, in 1881, the publication of the Apastamba Śrauta Sûtra, belonging to the Black Yajur Veda, was commenced by Professor R. Garbe. This is a very rare and important ritual work, of which for a long time, till Mr. Burnell's successful researches, no complete manuscripts were available. To the text is

<sup>1</sup> Proceedings for 1870, p. 32<sup>2</sup> *Ibid* for 1878, p. 17.<sup>3</sup> *Ibid* 10-157

added Rudra Datta's commentary, which, however, unfortunately does not extend to more than about two-thirds of the Sûtra<sup>1</sup>

On the Vedic prosody the leading work is the Chhandah Sûtra of Pingala Achârya. Of this, as well as of a commentary on it by Halâyudha, an edition was published in 1871 by Pandit Visvanâtha Sâstri

Each Veda has its own separate system of phonology, or Prâtisâkhyâ. As the Society had already undertaken the publication of the Black Yajur Veda, it was resolved, in 1854, to print the Prâtisâkhyâ of that Veda, and the task was confided to Babu Râjendralâla Mitra, the editor of the Taittîriya Brâhmana. Want of leisure, however, delayed the publication till 1871, when the text appeared together with its commentary, called the Tîl-bhâshvatara<sup>2</sup>

Vedic etymological lexicography is represented by *one* work, generally known by the name of Yâska's Nruka. Professor Roth's well-known edition of this work having been long out of print, the Society, in 1880, entrusted the task of bringing out another edition to Pandit Satyavata Sâmāsāmī, who had just successfully brought to a close his edition of the Sâma Samhitâ. His text of the Nruka is accompanied by extracts from various commentaries

Next to the literature of the Vedas, that connected with the six Darśanas, or philosophical schools of the Hindus, attracted the attention of the Society. The original text-books of all the six schools were gradually published<sup>3</sup>. The earliest to be edited were the Brâhma Sûtras, or the aphorisms of the Vedânta School, by Bâdarâyana. They were published, together with the

<sup>1</sup> See Preface to the edition, p. 9      <sup>2</sup> Proceedings for 1872, pp. 15, 18

<sup>3</sup> *Ibid* for 1872, p. 15



commentary of Sankara Achárya and the gloss of Govinda Ananda, in 1853, by Pandit Rána Náráyana Vidyáratna. An English translation was commenced in 1870 by the Rev. K. M. Banerjea, but not continued much beyond the first section. Among the many commentaries extant on Sankara's exposition of the Vedánta aphorisms of Bádaráyana, the Bhámatí of Váchaspati Misra is held in high esteem by Indian scholars, and an edition of this work was undertaken in 1875 by Pandit Bála Sástri<sup>1</sup>

The peculiar form of the Vedánta doctrine which rejects the gnostic theory that knowledge is the one thing needful, and contends that knowledge is only the handmaid of faith, *i.e.*, the doctrine of the Bhaktimárga, is also represented in the Society's series, namely, by the aphorisms of Sándilya, which were edited by Dr J. R. Ballantyne in 1861, and translated by Professor E. B. Cowell in 1878<sup>2</sup>. In this connection may be mentioned an edition, by Babu Rájendralála Mitra, in 1853, of the Chaitanya Chandrodaya Náataka, the object of which is to inculcate in a dramatic form the peculiar tenets of the Bhaktimárga.

After the Vedánta followed, in 1860, the Kanáda Sútias, or the aphorisms of the Vaisesika school. They were published by Pandit Jaya Náráyana Tarkapanchánana, who, in addition to the commentary of Sankara Misra, accompanied the text with a commentary of his own in Sanskrit. Two years later, in 1862, the Sankhyá aphorisms of Kapila were published by Dr J. R. Ballantyne, together with an English translation of the text and many extracts from Vijnána Bhikshu's commentary. Another celebrated work of the Sankhyá philosophy, the Sankhyá Prava-chana Bháshya, by Vijnána Bhikshu, had been already

<sup>1</sup> See Proceedings for 1876, p. 26      <sup>2</sup> See the Preface to the edition, also Proceedings for 1872, pp. 15, 16, for 1879, p. 26

edited by Mr FitzEdward Hall in 1851; and a third treatise, the *Sankhyá Sátra*, also by Vijnána Bhikshu, was published by the same editor in 1865. The introduction prefixed to the later edition contains much valuable information on historic and literary questions connected with the *Sankhyá* philosophy. Next in order came the aphorisms of the *Púruṣa Mīmāṃsā* school, by Jaimini, which, together with the commentary of Śāraṇa Svāmī, were edited in 1863 by Pandit Mahesa Chandra Nyāyaratna. In the following year, 1864, the *Gotama Sūtras*, or the aphorisms of the *Nyāya* School, were published, together with the commentary of Vātsyāyana, by Pandit Jaya Nārāyaṇa Tarkapāṇāna. Another of the most celebrated works of the *Nyāya* philosophy, the *Bhāṣā Parichheda*, had been already edited and translated, in 1850, by Dr E. Roer. The *Yoga Sūtras* of Patanjali were taken up by Dr Rājendralāla Mitra in 1880, who published them with the commentary of Bhoja Rāja and an English translation of both the text and commentary, and also with an English commentary compiled by the editor himself, including short extracts from the commentaries of Vyāsa, Vijnána Bhikshu, and Vāchaspati Miśra.

On the minor systems of philosophy two works were published by the Society,—the general philosophical summary of Mādhava Achārya, called the *Saṁvadaśāstra Saṅgraha*, which was published in 1853 by Pandit Isvara Chandra Vidyāsāgara, and the polemical disquisitions of Sankara, called the *Sankara Digvijaya*, a work of Anandagiri, which was edited in 1864 by Pandit Jaya Nārāyaṇa Tarkapāṇāna.

Next to the Vedas and Darsanas, the most important branch of Sanskrit literature, from the religious and social

points of view, is represented by the Purānas. They form a distinct class, being a sort of Cyclopædia of Sanskrit literature, and have, of late, entirely superseded the religion of the Vedas. The attention of the Society was early turned to them, and four works were undertaken at different times.<sup>1</sup> Two of them, the Mārkandeya Purāna and the Nāradapancharātna, were edited by the Rev K M Baneijea in 1855 and 1861 respectively; the other two, the Agni Purāna and the Vayu Purāna, were edited by Dr. Rājendralāla Mitra in 1870 and 1879 respectively.<sup>2</sup> The latter added to his edition of the Agni Purāna an English introduction, which very fully describes the contents of that work, one of the most ancient of the Purānic class.

No work belonging to the Smṛiti or law literature of the Hindu was undertaken by the Society till 1871. But in that year a commencement was made by publishing the elaborate legal digest of Hemādri, entitled the Chaturvaṅga Chintāmaṇi. Its real author is generally believed to have been the celebrated grammarian Vopadeva, though the work is known by the name of its patron, and the fact of Vopadeva having quoted largely from several works, now accepted to be no more than two or three hundred years old, opens a new field of enquiry. The work is a very voluminous one, and is divided into five parts (or khandas), treating severally of fasts and penances (or viatas), gifts (or dānas), times (or kālas), funeral ceremonies (or śrāddhā) and supplementary matters (or parisheshas). Manuscripts of it are very rare; indeed no manuscript of the complete work has yet been discovered. Fortunately the several

---

<sup>1</sup> Proceedings for 1872 p 16      <sup>2</sup> The Agni Purāna had been begun by Pandit Harachandra Vidyābhūṣana, who died after bringing out three fasciculi. The Vayu Purāna is still in course of publication.

portions of the work are practically independent of one another, and as the work is particularly valuable, because of the help it gives to the settlement of the dates of many treatises on Hindu law, and the light it throws on the state of Hindu society at the time when it was compiled and for some time previously, the Society resolved to proceed at once to the publication of those parts of the work of which manuscripts were already available, in the hope that by the time these were published, manuscripts of the remaining portions might be discovered. This hope has only partially been fulfilled. When the publication commenced in 1871, the only part of which sufficient manuscript material was at hand, was the second, treating of 'gifts' (or *dānas*) ; and the edition of this portion was entrusted to Pandit Bharata Chandra Snomanī, who added an alphabetical index of the contents as also of the names of the different authors quoted in the text. In the meanwhile sufficient manuscripts of the first part, on 'fasts and penances' (or *vrātas*), had been procured, and the edition of this portion was begun by the same editor in 1875, and after his death, continued by the Pandits Yogesvara Bhattāchārya and Kāmākhyānātha Taikarātna. Soon after this portion was completed, sufficient manuscripts were found to be ready to proceed to the publication of the fifth or supplementary part (or *pañcasha khanda*), which was done in 1881 by the joint editors of the previous portion. Of the fourth part, on the funeral ceremonies (or *śrāddhā*), there are already three manuscripts available, but of the fifth part, the *Kāla Khanda*, there are still none known that are complete<sup>1</sup>. After the *Chatuṣvaiga Chintāmaṇi*, the next work that was under-

<sup>1</sup> Proceedings for 1872, p 16, for 1874, pp 30, 31, for 1876, p 26, for 1877 p 35, for 1878, p 47, for 1880, p 27, for 1882, p 28



work, however, is much more an astriological one, and as such partakes of a somewhat encyclopædic character, treating, among other things, of geography, architecture, sculpture, medicine, statecraft, etc.<sup>1</sup> In style and matter somewhat resembling it is another work, the *Kāmándakīya Nītisāra*, or the political maxims of Chánakya, the minister of Chandra Gupta, compiled by his disciple Kāmandakī. It was edited, in 1849, by Dr R. Mitra, with extracts from the commentary, entitled *Upādhyāya Nnapēkshā*.<sup>2</sup>

The Hindu science of Medicine is represented in the Society's series by one work. This is the *Susruta Samhitā*, which, next to the Charaka, is the oldest and most important of the medical works of the Hindus. Of it Dr Uday Chánd Dutt commenced, in 1883, to publish an annotated translation.

Of works connected with Sanskrit rhetoric, the *Bibliotheca Indica* includes three. The first among them is the *Sāhitya Darpana*, or "Mirror of Composition," by Visvánātha Kavāñji, which is admittedly the standard of taste among the learned Hindus. It had been printed in 1828 at Calcutta under the authority of the General Committee of Public Instruction, but a revised edition was brought out in 1850 in the Society's collection by Dr E. Roer, and an English translation, together with an introductory analysis, was supplied by Dr J. R. Ballantyne in 1865.<sup>3</sup> The second to be edited was the *Kāvya-darsa* of Śrī Dandin, which was published in 1861 by Pandit Piema Chandra Tarkabāgīśa, with a commentary prepared by himself. In the following year, 1862, Dr FitzEdward Hall followed with the publication of the *Dasarūpa* by

---

<sup>1</sup> See Introduction to the edition p. 27 and the translation in the *Journal of the Royal Asiatic Society* Vol. IV (N.S.), pp. 457, 458. <sup>2</sup> See Weber's *History of Ancient Sanskrit Literature* p. 271, foot-note. <sup>3</sup> See the "Advertisement" prefixed to the edition.

Dhanánjaya, a work which, though of but moderate antiquity, has long been the favourite authority among the Hindus for everything connected with the theatre. The introduction contains a good analysis of the Hindu canons of dramaturgy as enjoined in the *Dasarúpa* and similar works.

The Sanskrit grammatical science of the Hindus is only represented by one work. This is the *Kátantra* or *Kálapa Vyákarana*, commonly ascribed to Saivavarman, of which Professor J. Eggeling published an excellent edition in 1874, with the commentary of Durgásimha and numerous notes and indexes. This grammar is important as the chief representative of the so-called Aindra school of grammarians, which has many points of difference from the standard school of Pánni.<sup>1</sup>

For the publication of the poetical portion of Sanskrit literature such ample provision was made on every side, that it was not thought necessary by the Society to take of it more than a passing notice. Only two works were published, but both standard works. One is the second part of *Srí Harsha's* great epic the *Naishadha Charita*, edited by Dr E. Roer, in 1851; the other the *Vásavadatta*, a romance by Subandha, published, in 1855, by Mr. FitzEdward Hall, with the gloss of *Sivaráma Tripáthi*. In this connection may be also mentioned an English translation of the *Kathá Sant Ságara*, which Mr. C H Tawney published in 1880. This work is the celebrated repository of Indian legends compiled from older sources by Somadeva of Kashmir toward the close of the eleventh century. The stories were illustrated by the translator with copious notes referring to similar legends current in other countries.

---

<sup>1</sup> See Dr Burnell's *Aindra School of Sanskrit Grammar*, I 51

Of Sanskrit works connected with Jainism, there is one in the Bibliotheca Indica. It is the *Sthavirāvali Charita*, or *Parisishta Parvan*, an appendix of the *Trishashti Sataka Purusha Charita* by Hema Chandra, of which Professor Hermann Jacobi commenced an edition in 1883. It narrates the history of the first twelve *Stavnas*, or patriarchs, from the death of Mahāvīra, down to the last *Śrutakevalin* of the Jain community.

Contrasted with the Society's *Bibliotheca Indica*, the pages of its *Transactions* could only receive philological contributions of small dimensions, and as the energies of the Society were mainly devoted to the advancement of the former series with its far more important object of editing texts and translations of whole oriental works—a series<sup>1</sup> the quantity and quality of which indeed is sufficient by itself to establish the philological credit of the Society—it could not be expected that many of the smaller contributions to the *Researches* and the *Journal* should be of great or permanent value. Important contributions in fact, only commenced to appear in the Society's *Transactions* when a new department of philology began to be opened up, and the attention of enquirers in India was turned from the study of the ancient Sanskrit to that of the numerous mediæval and modern vernacular languages and dialects.

Still Sanskrit philology did not remain entirely unrepresented. As early as 1789, there is in the first volume of the *Researches* a short essay on the Sanskrit literature of the Hindus by Govardhan Caul.<sup>2</sup> This is followed successively by three valuable dissertations from the pen of Mr. H. T. Colebrooke. The first, in 1801, treats of the Sanskrit and Prakrit languages, and is devoted mainly to an account of the

<sup>1</sup> *As Res*, Vol XII, Appendix, p 11, Rule 5

<sup>2</sup> *Ibid*, Vol I, p 340





translations of extracts or of small Sanskrit works ; thus, in 1839, of a few of the opening stanzas of Magha's well-known poem, the *Sisupāla Badha*, by Mr J. C. C. Sutherland,<sup>1</sup> and of the *Mahimnāstava*, or a hymn to Siva, by the Rev. Kṛṣṇa Mohan Banerjee ;<sup>2</sup> in 1845, of the *Vedānta Sāra* an introduction into the Vedānta Philosophy, by Dr E. Roer ;<sup>3</sup> in 1847, of the *Prasnotara Mālā*, or catechetical dialogue of Suka, by Mr J. Christan.<sup>4</sup> In the volume of the latter year, 1847, Dr E. Roer also published a critical review of the leading ideas of the Nyāya and Vaiśeṣika systems of philosophy,<sup>5</sup> to which a few years later, in 1851, he added a few remarks on the Sāṅkhya philosophy, elicited by a lecture on that philosophy, from the pen of Dr J. R. Ballantyne.<sup>6</sup>

At this time the study of the literature of the Vedas had attracted to itself the paramount interest of the scholars in Europe. In order to bring the result of their researches within the reach of Indian scholars, some of their best productions were translated and published in the Journal. Among these were three dissertations by Professor R. Roth, of Tübingen, on the hymn collections and the most ancient grammars of the Vedas, inserted in the Journals for 1847 and 1848.<sup>7</sup>

A no small portion of the Vedic literature consists of Upanishads or philosophical treatises. A large number of these were known to exist, through lists prepared by Mr. Colebrooke, Dr. Weber and others ; but in 1851, Mr. (now Sir) Walter Elliot was able to add considerably to these lists from information given him by Telugana Pandits. Some account of these additions and a synoptic view of this

<sup>1</sup> J. A. S. B. Vol. VIII, p. 16    <sup>2</sup> *Ibid.*, p. 355    <sup>3</sup> *Ibid.*, Vol. XIV, p. 100  
<sup>4</sup> *Ibid.* Vol. XVI p. 1228    <sup>5</sup> *Ibid.*, p. 167    <sup>6</sup> *Ibid.*, Vol. XX, p. 397    <sup>7</sup> *Ibid.*,  
Vol. XVI, p. 812, Vol. XVII, p. 6





of Sanskrit philology, the Prākṛit language is already, though merely passingly, noticed in 1789. A much fuller notice of it was given by Mr. H. T. Colebrooke in his essay on the Sanskrit and Prākṛit languages, published in 1801 in the seventh volume of the *Researches*.<sup>1</sup> In it he reviewed all the information at that time available on the subject of the various kinds of Prākṛit and the literature in which it is used. It omitted, however, all mention of the most ancient forms of Prākṛit, the Pāli and the Gāthā, which had not yet become known; and overlooking a distinction which was only a discovery of later days, it confused the modern forms of Prākṛit (the Gaudians) with its mediæval forms (the Prākṛits, commonly so called). The same subject, though from a particular point of view and with the same, at that time, natural defects, was continued by Mr H. T. Colebrooke, in 1808, in his essay on Sanskrit and Prākṛit poetry, in which he discussed the laws of Prākṛit versification, and illustrated his remarks by numerous quotations from the vernacular literature.<sup>2</sup>

It was only about twenty years afterwards that the first knowledge of the Pāli language, one of the oldest forms of the Prākṛit, was obtained through the ancient Buddhist literature of Ceylon and Birma, which was composed in that language. Mr. B. Clough, in Colombo, and MM E Burnouf and Chr. Lassen, in Paris, were the first to study it more intimately and make it more generally known in 1824 and 1826.<sup>3</sup> About ten years later, the genuineness of the Pāli, both with regard to its age and its being a natural product, received a striking confirmation through the discovery, by Mr. Prinsep

<sup>1</sup> As Res, Vol VII, p 199    <sup>2</sup> *Ibid*, Vol X, p 389    <sup>3</sup> See Mr B Clough's Compendious Pāli Grammar in 1824, and Messrs E Burnouf and Chr Lassen's Essay sur le Pāli, in 1826

and his coadjutors in 1837 and 1838, of ancient Prākṛit dialects, more or less closely allied to the Pāli, in which the rock and pillar inscriptions of Asoka and his contemporaries were composed<sup>1</sup> From a cursory comparison of the language of these inscriptions with the Sanskrit of India and the Pāli of Ceylon, Mr J Prinsep arrived at the conclusion, which later researches have proved to be substantially correct, that the language of the inscription is "intermediate between Sanskrit and Pāli," and that it occurs in those inscriptions in two different dialects, one peculiar to the East, the other to the West of India<sup>2</sup>

About the same time, the researches of Mr. B H Hodgson drew attention to a third kind of the ancient vernacular, in which the sacred works of the Northern Buddhists in Nepal were by him found to be composed As this species of Prākṛit exhibited in many ways a most curious resemblance to the well-known Sanskrit, it is not to be wondered that at first it was mistaken to be the latter.<sup>3</sup> It was not till many years later, when in 1853 Babu Rājendralāla Mitra undertook to prepare an edition of a northern Buddhist work, the *Lalitā Vistara*, for the Society's *Bibliotheca Indica*, that a more just appreciation of the language was formed.<sup>4</sup> It was then found that this Gāthā dialect, as it was called, was but another dialect like the Pāli and the Māgadhī, possessing the closest affinities to Sanskrit<sup>5</sup>

With the exception of these earlier contributions to the study of Prākṛit philology, the latter did not engage

<sup>1</sup> J A S B, Vol VI, pp 469, 686, Vol VII, pp 276, 563, *et passim*    <sup>2</sup> *Ibid*, Vol VII, p 276    <sup>3</sup> *Ibid*, Vol VI p 682    <sup>4</sup> This work is a kind of "Memoirs" of the early life of Sakya Simha, the founder of Buddhism An English translation of it was commenced by Dr Mitra in 1881, also in the *Bibliotheca Indica* See the list of the latter series in Appendix C to the Historical Part of the Centenary Review    <sup>5</sup> J A S B, Vol XXIII, p 604

the Society's attention during many years. Indeed, it was but comparatively lately that this branch of philological research has been more zealously cultivated even in Europe. A reflex of the new interest taken in it in Europe soon showed itself in India, its native country. The earliest was a translation, arranged on European models, of Kachcháyana's celebrated Páli grammar, which Dr F. Mason published, in 1857, in the *Bibliotheca Indica*. In 1875, Major (now Lieutenant-Colonel) G. E. Fryer published a Páli study on the Ceylon grammarian Sangha Rakkhita Thera and on his treatise on Rhetoric, the *Subodhálankára*, the text of which he edited<sup>1</sup>. It was followed in 1877 by another study on the Páli text of the *Vuttodaya*, or 'exposition of metre,' by the same Sangha Rakkhita Thera, and to the text were added a translation and notes.<sup>2</sup> In 1878, the writer of the present Review made known a very old Prákrit grammar, called the *Prákrita Lakshana*, the work of a grammarian Chanda (or Chandra), and treating of the *Arsha*, or ancient Prákrit. An edition of it was published by him two years later, in 1880, in the Society's *Bibliotheca Indica*, together with a critical introduction and a comparative analysis of the grammars of the principal Prákrit idioms<sup>3</sup>. In 1879, Mr. H. L. St. Baube contributed a short paper on Páli derivations in Burmese<sup>4</sup>. In the same year, the writer of this Review brought to notice a new manuscript of the well-known Prákrit grammar of Vararuchi, which was of some interest as giving several new readings, differing from those of the published text in Professor Cowell's edition.<sup>5</sup> In the following year, 1880,

<sup>1</sup> J A S B, Vol XLIV, p, 91    <sup>2</sup> *Ibid*, Vol XLVI, p 369    <sup>3</sup> Proceedings for 1878, p 178, for 1880, p 88    See the list of the *Bibliotheca Indica* in Appendix C to the Historical Part of the Centenary Review  
<sup>4</sup> J A S B, Vol. XLVIII, p 253    <sup>5</sup> Proceedings for 1879, p 79

the same made known a new and hitherto quite unknown Prākṛit grammar, the Prākṛitānanda, by Raghunātha.<sup>1</sup> Lastly, in 1882, Lieutenant-Colonel G E Fyfe communicated a note on the Pāli grammarian Kachchhāyana, in which he endeavoured to show that the true date of that grammarian, which had hitherto been placed before the Christian era, must be somewhere in or about the twelfth century after Christ—a proposition the establishment of which can only be expected from further research.<sup>2</sup>

Out of the ancient and mediæval Prākṛit languages grew up, within the last six or seven centuries, the modern vernaculars of India. Of these, generally, eight are enumerated; namely, beginning in the North-West, the Kashmīrī, Panjābī, Sindhī, Gujarātī, Marāthī, Hindī, Bangālī, Uṛiyā. Recent researches, as will be noticed further on, have shown that, in the area which is generally appropriated to Hindī, there exist in reality two distinct languages, the Hindī (properly so called), and the Bihārī. The correct number of modern vernaculars, therefore, is at least nine, which, moreover, possess a large number of dialectic varieties. It was the investigation of these languages and dialects of modern India to which the efforts of the Society were principally and most successfully directed. Curiously enough, the westernmost group of these languages, consisting of the Sindhī, Panjābī and Kashmīrī, two of which, the Panjābī and Kashmīrī, are at present among the least known, was the earliest to attract the Society's attention. Later on, various circumstances combined to concentrate the investigations of the Society on the central and eastern vernaculars, the Hindī, Bihārī, and Bangālī, regarding which our knowledge, in the present day, is most advanced.

<sup>1</sup> Proceedings for 1880, p 100

<sup>2</sup> *Ibid* for 1882, pp 116, 125



Sindhi was brought under the notice of the Society, as early as 1837, by Mr. J. Prinsep, in a review, contributed by him to the *Journal*, of Mr. W. H. Wathen's grammar of that language.<sup>1</sup> A short vocabulary of it, drawn up by Captain J. B. Eastwick, was published a few years later in the *Journal* for 1843. It contained a promiscuous collection of words, followed by a particular list of names of different artificers and their implements, and a particularly valuable feature in it was that it gave the equivalents of every English word in two different Sindhi dialects, those of Sái and Lái.<sup>2</sup>

Sikh Granth, entitled the "Book of the Tenth Pontiff" Major (now General) J. Abbott followed in 1854 with a free translation of the Panjábí legend of Rasálú, to which he added copious explanatory notes.<sup>2</sup> Of a similar kind were the contributions of Lieutenant (now Captain) R. S. Temple in 1882, and Rev. C. Swynerton in 1883. The latter published a collection of small folktales from the Upper Panjáb in an English translation. The former gave a number of Hindí folksongs from the same country, the usefulness of which was much increased by the grammatical and lexicographic remarks, with which Captain Temple accompanied the text and translation of his folksongs. It should be noted, however, that much of the language from which all the foregoing translations were made, was not strictly Panjábí, but rather a species of Western Hindí.

The Kashmírí we first noticed in 1841 in the tenth volume of the *Journal*. Mr. M. P. Edgeworth, finding himself stationed in Lúdiána, in the Panjáb, in the midst of a large colony of Kashmírí weavers, set to work to learn their language. The result he published in the *Journal* in the shape of a rudimentary grammar and short vocabulary.<sup>3</sup> A rather fuller grammar and vocabulary were published three years later, in 1844, by Major R. Leech.<sup>4</sup> Both these treatises labored under a serious disadvantage. They were not merely exceedingly meagre, but in addition they were avowedly founded upon the language of a small community of artisans, long expatriated from their native country, with whose language, moreover, the writers only became acquainted through the intervention of a Musalman. Under these circum-

<sup>1</sup> J. A. S. B., Vol. XIX, p. 521, Vol. XX, pp. 314, 487.    <sup>2</sup> *Ibid.*, Vol. XXIII, p. 123.    <sup>3</sup> *Ibid.*, Vol. X, p. 1038.    <sup>4</sup> *Ibid.*, Vol. XIII, pp. 397, 553.

stances, the trustworthiness and usefulness of the information was necessarily very doubtful. This led the Hon'ble G Campbell in 1866 to move the Society to request the Panjáb Government to take measures for obtaining an accurate knowledge of the Arian languages spoken in the territories of the Mahárāja of Kashmir. During the discussion of Mr. Campbell's motion, some useful information regarding the affinities and the area of the Kashmírī language was elicited,<sup>1</sup> but beyond this the movement was not followed by any practical results. It is true, some lexicographic information was also given in 1866 by Captain H H Godwin-Austen, in a comparative collection of Kashmírī, Baltí and Kistwárī words,<sup>2</sup> and in 1870, by Dr. W. J Elmslie, in a list of Kashmírī words drawn up according to Mr. Justice Campbell's "model vocabulary for the discovery of the radical affinities of languages and for easy comparison."<sup>3</sup> But both contributions, though proceeding from Kashmir itself, were too exceedingly meagre to be helpful in advancing the knowledge of Kashmírī. A complete and reliable grammar and dictionary of that language is still a desideratum, the supply of which must be hoped for from future researches.

Among all the modern vernaculars of North India, Hindí is one of the most important and prominent. Nevertheless, little notice of it, as distinguished from Bihári, is found in the Society's Transactions. This fact, strange at first sight, is fully explained by the peculiar circumstances of that language. Unlike the other vernaculars of India, which before they were recognized and elevated under European influence, were more or less obs-

<sup>1</sup> Proceedings for 1866, pp 16, 62, 191      <sup>2</sup> J A S B, Vol XXV, 1

<sup>3</sup> *Ibid*, Vol XXXIX, p 25



stances, the trust<sup>y</sup> of his poem<sup>1</sup> This led to an ac-  
 information was ne<sup>y</sup> between him and Mr Growse re-  
 Hon'ble G. Camp<sup>method</sup> of editing and translating Chand's  
 request the Pan<sup>ished</sup> in 1872 and 1873 by rival translations  
 obtaining an ac<sup>il</sup> stanzas of the first canto, intended to  
 spoken in the, spective positions<sup>3</sup> In the Journals of the  
 During the di<sup>Mr</sup> Beames also published a list of the books  
 useful inform<sup>ained</sup> in Chand's poem,<sup>4</sup> and some valuable  
 the Kashmír<sup>tudies</sup> in the archaic language of that ancient  
 the moveme<sup>time</sup> the plan of publishing in the Bibliotheca  
 It is true, s<sup>tion</sup> of Chand, which, as mentioned, had already  
 in 1866 by<sup>Society's</sup> sanction some years previously, was  
 tive collec<sup>ken</sup> up, and the work of editing it divided between  
 and in 1<sup>ies</sup> and the writer of this Review; the former  
 words dr<sup>his</sup> share the first twenty-two cantos of the epic,  
 "model<sup>remaining</sup> forty-seven cantos were entrusted to  
 of le<sup>ver.</sup><sup>6</sup> The first fasciculus of Mr Beames's portion  
 cont<sup>ublished</sup> in 1873, after which unfortunately the pres-  
 of official work compelled him to discontinue his  
 we<sup>ion</sup> The first fasciculus of the second part was  
 th<sup>ublished</sup> in 1874, and was followed in the succeeding  
 years<sup>7</sup> by three more fasciculi of the text, as well as one  
 fasciculus of the translation

Of a much later date than Chand's epic are the rhap-  
 sodies of Gambhī Rai, the bard of Nūrpur Mr Beames  
 had communicated to the Society a short notice of them  
 in 1872;<sup>8</sup> but he afterwards published in the Journal for  
 1875 a portion of their text, together with a translation and

<sup>1</sup> J A S B, Vol XXXIX, p 145    <sup>2</sup> *Ibid*, Vol XXXVIII, pp 161, 171,  
 Vol XXXIX, p 52 See also Proceedings for 1873, p 122    <sup>3</sup> J A S B, Vol XLI,  
 p 42, Vol XLII, p 329    <sup>4</sup> *Ibid*, Vol XLI, p 204    <sup>5</sup> *Ibid*, Vol XLII, p 167

<sup>6</sup> Proceedings for 1874, p 32    <sup>7</sup> *Ibid* for 1875, p 32 See the list of the Biblio-  
 theca Indica in the Appendix C to the Historical Part of the Centenary Review.

<sup>8</sup> Proceedings for 1872, p 156

explanatory notes These songs are called seventeenth century ; their language is lect Sidor Lœwen- but full of Panjábí words and consti East relate the story of Rája Jagat Singh, lord F<sup>1</sup> was com- and Pathan in the Kángará district. The la<sup>36</sup> It is

Of about the same age is a shorter <sup>Hazárah</sup> a bard Jodhiáj in the Eastern Rájpútání d<sup>1</sup> vesterly It is called the Hamír Rásá, and relates the s<sup>1</sup> the e<sup>1</sup>ght, the Chobán lord of Rathambai, at the time w<sup>1</sup>alysis c Muhammad Sháh was emperor of Dehli Aájmalá, m<sup>1</sup>nd translation of this poem by Babu Bijanát<sup>1</sup> greater i<sup>1</sup> pádhýaya of Jaipur was published in the Journ<sup>1</sup> in 187

Until quite recently it was generally believ<sup>1</sup>he fact is area of the Hindí language extended so far to <sup>1</sup>which has to be continuous with that of the Bangálí TL standard this opinion was first prominently pointed out by t<sup>1</sup> respects of this Review in 1872, who showed that that<sup>1</sup>. The extended area was occupied by two entirely different<sup>1</sup>int of of dialects, each of which classes constituted a dis<sup>1</sup>n of language, the boundary line being, oughly speaking, ost 80th degree of longitude<sup>3</sup> Among the western group of these dialects, one, the Bray Bháshá, had received a cō siderable amount of literay cultivation, and thus had gradually risen, in a somewhat modified form, to the position of the standard dialect of the group, under the name of Hindí No corresponding process had taken place among the eastern group of those dialects; whence it had happened that their claim to constitute a separate language and bear a distinct name of then own had failed to be recognized. The want of such a distinctive and collective name, however, began to be strongly felt, as soon as the dialects belonging to

<sup>1</sup> J A S B, Vol. XLIV, p 192    <sup>2</sup> *Ibid*, Vol. XLVIII, p 186 See also Proceedings for 1878, p 195    <sup>3</sup> J A S B, Vol. XLI, pp 121, 122

stances, the trust applied in 1883 by Mr G. A. Grierson, information was needed of the group by the collective Hon'ble G. Campbell, language—a term taken from the area request the Paninment of the dialects, the Maithilī, and obtaining an acquiescence to general acceptance on the ground spoken in the convenience.

During the time Maithilī, just mentioned, the following useful information to the Bihārī language : the Baiswārī or the Kashmīrī, the Bhojpūrī, and the Māgadhī. Among the movements, Bundelkhandī was noticed as a peculiar dialect. It is true, since 1843, by Major R. Leech, though its true in 1866 by the Hindī was not at that time recognized. The collection gave merely a very meagre outline of its and in 1866 a very short vocabulary.<sup>1</sup> Nothing more words did till 1875, when Mr. V. A. Smith published “model”, with translations and notes, of some popular songs of the Hamīrpur district, in Bundelkhand, to which he contributed some more in 1876.<sup>2</sup> In the latter year, Mr. F. S. Weyse also published, as a specimen translation, an English version of the prologue to the Rāmāyan of the famous poet Tulsī Das. This vernacular rendering of Vālmīki's celebrated epic is composed in the Baiswārī dialect, a variety of the Bundelkhandī.<sup>3</sup> Of the standard Bihārī dialect, the Maithilī, Mr. G. A. Grierson published in 1880-1882 a very full grammar, chrestomathy and vocabulary.<sup>4</sup> The chrestomathy, among other specimens of Maithilī literature, contained a complete edition of the genuine text of the poems of the well-known Bidyāpati. To these specimens Mr. Grierson added, in 1882, an edition of the Haibans, a

<sup>1</sup> J. A. S. B., Vol. XII, p. 1086

<sup>2</sup> *Ibid.*, Vol. XLIV, p. 389, and Vol. XLV,

p. 277 <sup>3</sup> *Ibid.*, Vol. XLV, p. 1

<sup>4</sup> *Ibid.*, Extra Numbers for 1880-1882

poem of Manbodh or, as he is also called The only specimens of the Bhojpúrí dialect since Læwenhitherto published, are some folksongs from East pur, which were collected by Mr Hugh F<sup>1</sup> was com- edited by Mr. G A Grierson in 1883<sup>2</sup> The last<sup>3</sup> It is some valuable notes on certain dialectic peculiarities<sup>4</sup> Hazárah may be noticed in the songs<sup>5</sup> recently

With regard to the Bangálí language, the English, notice which occurs in the Journal is the analysis of a historical poem in Bangálí verse, called the Rájmalá, made by the Rev James Long in 1850<sup>6</sup> Of far greater importance is a contribution by Mr G A Grierson in 187 on the Northern Bangálí dialect of Rangpur The fact is well-known that, beside the Nadiya dialect, which has afforded the basis for the modern literary or standard Bangálí, there are several dialects which in many respects exhibit considerable differences from that standard The importance of the dialects from the philological point of view cannot be overestimated. But with the exception of the Rangpur dialect, their study has been hitherto almost entirely neglected. A brief outline of the grammar of that dialect was given by Mr. G A. Grierson in 1877, together with a few specimens of Rangpurí folksongs,<sup>7</sup> and in 1878 he edited the longer 'Song of Manik Chandra,' with an English translation<sup>8</sup>

Researches into the dialects of the Gaudian languages, with respect to their grammar, vocabulary and local extent, are of particular value from the point of view of comparative philology Comparative studies accordingly commenced to be especially cultivated from the time that attention began to be more prominently directed to the investigation

<sup>1</sup> J A S B, Vol LI, p 129 • <sup>2</sup> *Ibid*, Vol LII, p 1    <sup>3</sup> *Ibid*, p 20  
<sup>4</sup> *Ibid*, Vol XIX, p 533    <sup>5</sup> *Ibid*, Vol XLVI, 186    <sup>6</sup> *Ibid*, Vol XLVII, p 135



Arc'd provincial dialects of North India. There

stances, the , a few notices of earlier attempts at a com-  
information dy of the Gaudians In the Journals for 1837,  
Hon'ble G 1849, there are short comparative vocabularies  
request t agálí and Assamese languages<sup>1</sup> In the Journal  
obtaining of the dative and accusative cases when formed  
spoken a postposition in Bangálí and Hindústání<sup>2</sup> In 1864,  
Dui Rájendralála Mitra contributed a paper on the  
use of the Hindí language and its relation to the Uidú  
thálect. It was the first attempt in the Journal, though  
under the circumstances necessarily an imperfect one, to  
trace the grammar of modern Hindí to its Prákrit and  
Sanskrit sources.<sup>3</sup> A similar attempt with respect to the  
vocabulary of Bangálí was made in 1870 by Babu Pratapa  
Chandra Ghosha.<sup>4</sup> About this time the subject was taken  
up in right earnest by Mr. J Beames, who communicated in  
1870 a paper on the relation of Uiyá to the modern Aryan  
languages of India,<sup>5</sup> and afterwards prepared a compara-  
tive grammar of those languages, the first volume of which  
appeared early in 1872. In the Journal of the same year  
appeared the first three of a series of 'Essays in Aid of a  
Comparative Grammar of the Gaudian Languages,' contri-  
buted by the writer of the present Review<sup>6</sup> A fourth essay  
followed in 1873,<sup>7</sup> and a fifth in 1874<sup>8</sup> After some intro-  
ductory remarks on the adoption of the term 'Gaudian' and  
the distinction between the 'Biháí' and Hindí languages,<sup>9</sup>

<sup>1</sup> J A S B, Vol VI, p 1023, Vol VII, p 56, Vol XVIII, p 183 <sup>2</sup> *Ibid*,  
Vol XXI, p 105 <sup>3</sup> *Ibid*, Vol XXXIII, p 489 <sup>4</sup> *Ibid*, Vol XXXIX, p 131  
<sup>5</sup> Proceedings for 1870, p 192 <sup>6</sup> J A S B, Vol XLI, pp 120, 124 <sup>7</sup> *Ibid*,  
Vol XLII, p 59 <sup>8</sup> *Ibid*, Vol XLIII, p 22 <sup>9</sup> The term 'Gaudian' was  
originally spelt 'Gaurian,' and its use evoked a small controversy, see Proceed-  
ings for 1872, pp 98, 177 The terms originally used for 'Biháí,' were 'Gaurani'  
and 'Eastern Hindí.'

the essays proceeded to discuss the origin of the inflection of nouns from the Prākṛit and Sa-  
 continuation of the essays was interrupted by the death of the author, who, some years later, had com-  
 from India of the author, who, some years later, had com-  
 reviewed the whole subject of the affinities of the Hindī languages to each other and their derivation from  
 Prākṛit and Sanskrit in a separate volume treating of the comparative grammar of those languages. In the same  
 1880, he also contributed to the *Journal* a list of Hindī and with remarks on their derivation and classification.<sup>1</sup> Soon afterwards Mr G. A. Grierson commenced a series of essays on the declension and conjugation of the Hindī dialects of which the first, containing some introductory remarks on the various dialects, and the second, treating of declension, were published in 1883.<sup>2</sup> On the latter subject some observations were added by the writer of this Review.<sup>3</sup> Some information of a comparative philological kind, it may be mentioned, was also contained in an earlier memoir by Mr F. S. Growse, contributed in 1874, on the etymology of local names in Northern India, as exemplified in the district of Mathurā.<sup>4</sup>

In connection with the Indian languages may be mentioned the idiom of the Gipsies in Europe, whose connection with India as their original home was very early suspected. Thus, in 1801, Captain David Richardson published a memoir on the Indian 'Nats,' in which he pointed out various resemblances between their language and that of the Gipsies.<sup>5</sup>

The Indian vernaculars of India belong to the great stock of Indo-Aryan languages, the members of which

<sup>1</sup> J. A. S. B., Vol. XLIX, p. 33    <sup>2</sup> *Ibid.*, Vol. LII, p. 119    <sup>3</sup> *Ibid.*, p. 159    <sup>4</sup> *Ibid.*, Vol. XLIII, p. 224    <sup>5</sup> *As Res.*, Vol. VII, pp. 457, 481

stances, the Persia over the whole of Europe. As evi-  
 connection there exist on the North-Western  
 information 18 India a number of languages, or dialects, which  
 Hon'ble G. of a more or less close affinity to the North  
 request t' th maculars. These are the Káffirí, Brabúí, Ba-  
 obtainin, o ashúí, Dardí, Chulás and the Galchah; and of each  
 spoken pse the Society's Journal contains shorter or longer  
 Durí is. The earliest of the notices refer to the Káffirí,  
 usgin ní and Balúchí, and occur in the seventh volume of  
 thalec Journal of the year 1838. In that year Captain Alex-  
 andader Burnes communicated a very short vocabulary of the  
 trāKáffirí language;<sup>1</sup> and Lieutenant R. Leech, outlines of the  
 S grammar, together with short vocabularies, of the Brabúí  
 (or Brabúky) and Balúchí (or Balochky) languages.<sup>2</sup>  
 An equally meagre list of words in Balúchí and Káffirí  
 was given by Captain (now Major) H. G. Raverty in 1864.<sup>3</sup>  
 In 1881, however, a sketch of the Northern Balúchí lan-  
 guage was published by M. Longworth Dames, which  
 contained a very serviceable grammar and vocabulary,  
 together with specimens of that language.<sup>4</sup>

Of the Pashtú or Afghání language, Lieutenant R.  
 Leech published, in 1839, an outline grammar and a short  
 vocabulary.<sup>5</sup> Its exact affiliation as a Semitic or an Aryan  
 language had long been a matter of dispute since Sir  
 William Jones's unfortunate but excusable note as to its  
 Chaldean affinity in the second volume of the Asiatic  
 Researches.<sup>6</sup> Some remarks in reference to this subject  
 were contributed by Lieutenant (now Major) H. G. Raverty  
 in 1854,<sup>7</sup> but it was fully discussed and the Aryan affinity

<sup>1</sup> J A S B, Vol VII, p 332    <sup>2</sup> *Ibid*, pp 538, 608    <sup>3</sup> *Ibid*, Vol XXXIII,  
 p 272 See also Proceedings for 1866, p 63    <sup>4</sup> *Ibid*, Extra Number for 1880  
<sup>5</sup> *Ibid*, Vol. VIII, p 1    <sup>6</sup> As Res, Vol II, p 76    <sup>7</sup> J A S B, Vol. XXIII,  
 p 576

of the Pashtú clearly shown by the Rev. Isidori Lœwenthal in 1860 <sup>1</sup>

On the language of Chilás some information was communicated by the Hon'ble G Campbell in 1866 <sup>2</sup> It is spoken by the independent mountaineers on the Hazárah Frontier, thence throughout Chilás, which is the westerly hill-territory of the Mahárája of Kashmír, and in Ghilghit, another Central Asian acquisition of the Mahárája

Closely allied to the Chilás language are the Dardí and Galchah languages The latter language possesses several dialects, of three of which,—the Wakhí, Saikolí and the Shighní,—Mr R B Shaw published outline grammars and specimens in 1876 and 1877 <sup>3</sup> In the following year, 1878, he added a short account of the grammar of the Dardí dialects <sup>4</sup>

Besides the Gaudian and Frontier languages of the Aryan stock, India possesses a large number of aboriginal languages, or dialects, of various classes There are in the south the Drávidian, in the centre the Kolarian, in the north the Tibeto-Burman, in the east the Indo-Chinese languages. A large amount of information on all these languages and dialects is stored up in the Transactions of the Society, gathered together chiefly by the zealous enquiries of Mr. H B Hodgson, Rev N Browne, Mr W. Robinson and others It consists mainly of outline grammars and short comparative vocabularies, representing much valuable raw material, out of which, it may be hoped, a thorough and systematic knowledge of those multifarious languages and their mutual relations may be elaborated in the course of time.

<sup>1</sup> J A S B, Vol XXIX, p 323      <sup>2</sup> Proceedings for 1866, pp 42, 62, 191

<sup>3</sup> J A S B, Vol XLV, p 139, Vol XLVI, p 97      <sup>4</sup> *Ibid*, Vol XLVII, p 38

Of the principal members of the Drávidian family of languages,—the Tamil, Telugu, Tulu, Malayálam and Kanarese,—which have had much attention bestowed on them from other quarters, no more than a brief notice occurs in the Journal of the Society. It consists of a very small comparative vocabulary, contributed in 1849 by Mr. B. H. Hodgson.<sup>1</sup> Some of the Nílugini dialects,—the Toda, Kora, Badaga, Kurumba, Irula,—were also noticed in that vocabulary, but a special list of words of these hill-dialects, together with some grammatical observations, was communicated by Mr. B. H. Hodgson in 1856.<sup>2</sup> Another hill dialect, the Paháí, spoken in the Ráymahal Hills, in the vicinity of Bhagalpur, is the earliest of the Drávidian group ever mentioned in the Society's Transactions. A very small list of words of that dialect was communicated, as early as 1798, by Major R. E. Roberts in the Asiatic Researches.<sup>3</sup> A similar list was published much later, in 1848, by Mr. B. H. Hodgson, in a small comparative vocabulary, which also contained words of two other languages of the Drávidian group,—the Gondí and the Oráon.<sup>4</sup> A very small list of Gondí words had been already communicated in 1844 by Dr. Voysey,<sup>5</sup> and a somewhat larger one, together with a few grammatical notes and specimens, in 1847, by Dr. O. Manges.<sup>6</sup> A yet fuller grammar and vocabulary, though still too incomplete, was published by the Rev. James Dawson in 1870.<sup>7</sup>

The most prominent of the Kolarian family of aboriginal languages is the Mundáí, the language of the Kols.

<sup>1</sup> J. A. S. B., Vol. XVIII, p. 250, see also Vol. XIX, p. 461, and Vol. XXI, p. 17.

<sup>2</sup> *Ibid.*, Vol. XXV, pp. 31, 32, 498.    <sup>3</sup> *As. Res.*, Vol. V, p. 127.    <sup>4</sup> J. A. S. B., Vol. XVII, Part I, p. 553.

<sup>5</sup> *Ibid.*, Vol. XIII, p. 19.

<sup>6</sup> *Ibid.*, Vol. XXV, p. 1.

<sup>7</sup> *Ibid.*, Vol. XXXIX, pp. 103, 172.

or Hos. The first notice of it occurs in the *Journal* for 1840, in which Lieutenant Ticeik published an outline of its grammar as well as a short vocabulary.<sup>1</sup> A very small list of words was also communicated in 1841, by Dr. Voysey;<sup>2</sup> and in 1848, by Mr. B. H. Hodgson, in his comparative vocabulary of aboriginal languages of Central India.<sup>3</sup> A much fuller vocabulary was contributed by Babu Rakhil Das Haldar in 1871.<sup>4</sup> Very closely allied to the Mundáí is the Sontháí, of which a small list of words is also contained in Mr. B. H. Hodgson's comparative vocabulary, above mentioned.<sup>5</sup> A more subordinate dialect of the same class is the Juangí or Patnáí, spoken by a savage race, "which inhabits the jungles of the Tributary Meháls to the south of Singhbhum." A few words of this dialect were noted down by Mr. E. A. Samuells in 1856.<sup>6</sup>

On the southern ranges and at the foot of the Himalayan mountains, a very large number of languages, or rather dialects, are spoken, which are commonly classed together as the Sub-Himalayan, or Tibeto-Burman languages. They have received as yet very little accurate investigation; all that is at present known being more or less meagre comparative lists of words, and here and there some short grammatical observations. They have been provisionally divided into several groups: the Nepalese, the Sikhimí, the Assamese, the Manipurí, the Burmese, and the Trans-Himalayan. The affinity of all these Mongolian languages with those spoken in the Caucasus was discussed by Mr. B. H. Hodgson in a memoir contributed to the *Journal* of 1853.<sup>7</sup>

---

J. A. S. B., Vol. IX, pp. 997, 1063.    <sup>2</sup> *Ibid.*, Vol. XIII, p. 19.    <sup>3</sup> *Ibid.*, Vol. XVII, Part I, p. 553.    <sup>4</sup> *Ibid.*, Vol. XL, p. 46.    <sup>5</sup> *Ibid.*, Vol. XVII, Part I, p. 55.    <sup>6</sup> *Ibid.*, Vol. XXV, p. 302.    <sup>7</sup> *Ibid.*, Vol. XXII, p. 26.

To the Nepalese group belong the Limbú and Mumi dialects, of which Mr. A. Campbell published, in 1840, small lists of words.<sup>1</sup> Another list of words was communicated by Mr. B. H. Hodgson, in 1847, as part of a comparative vocabulary, of the eastern Sub-Himalayan languages or dialects<sup>2</sup> In the same vocabulary there are also lists of words of the Newár, Gurung, Magar, Sunwar and Kirantí dialects<sup>3</sup> A much fuller vocabulary of the last mentioned dialects of the Kirantís, as well as of those of the Bahing and Váyu or Háyu tribes, was published by Mr. Hodgson in 1857;<sup>4</sup> and a grammar of the Bahing dialect was added in 1858<sup>5</sup> In the Journal for 1857, Mr. Hodgson also published a short comparative vocabulary of a number of other small Nepalese dialects, the Daharí or Dabí, the Paharí or Pahí, the Denwar, Kuswar, Biamu, Pákhyá, Táksya, Tharu, Kusunda and Chepang.<sup>6</sup> Of the last two dialects a very short list of words had been already communicated by him in 1848;<sup>7</sup> and on the language and literature of the Newárá there is some information by him as early as 1828 in the Asiatic Researches<sup>8</sup>

There is only one language ascribed to the Sikhim group. It is the Lepcha, of which a list of words was given by Mr. B. H. Hodgson in 1847 in his above mentioned comparative vocabulary of the Sub-Himalayan languages.<sup>9</sup> A grammar of the language was afterwards published by Colonel Mainwaring<sup>10</sup>

---

<sup>1</sup> J. A. S. B., Vol. IX, pp. 605, 613, see also Vol. XI, p. 4, and Vol. XXIV, p. 202, where there is a note on the Limbú alphabet    <sup>2</sup> *Ibid.*, Vol. XVI, p. 1235    <sup>3</sup> *Ibid.*, p. 1235    <sup>4</sup> *Ibid.*, Vol. XXVI, pp. 320, 333, 350, 372, 429, 486  
<sup>5</sup> *Ibid.*, Vol. XXVII, p. 393    <sup>6</sup> *Ibid.*, Vol. XXVI, pp. 320, 327    <sup>7</sup> *Ibid.*, Vol. XVII, Part II, pp. 650, 655    <sup>8</sup> As Res., Vol. XVI, p. 409    <sup>9</sup> J. A. S. B., Vol. XVI, p. 1235    <sup>10</sup> See the List of Publications in Appendix C of the Historical Part of the Centenary Review

To the Assam group belong a large number of languages or dialects, of which the Rev N Brown published in 1837 a small comparative vocabulary. These are the Aka, Aboi, Mishmi, Singpho, Jili and Gaió.<sup>1</sup> Twelve years later, in 1849, MM W Robinson and B H Hodgson contributed short grammars and vocabularies of the last three of the dialects just mentioned, as well as of some new ones, *viz*, the Kacháí or Bodo, Míri, Nága, Míki, Dhimul.<sup>2</sup> Among these the Nága language is one of the most important, and possesses several distinct dialects. A small comparative vocabulary of these dialects was supplied by Mr. B H. Hodgson in 1850.<sup>3</sup> The same was done in 1855 by Lieutenant R Stewart, in a memoir on northern Kacháí; and in 1872 and 1875, by Mr S E Peal and Captain J. Butler in two memoirs on the Nága country. They also added the corresponding words from the Kacháí and Míki dialects.<sup>4</sup> In the year 1851, Mr W Robinson also added to his previous contributions an outline grammar and vocabulary of the Dophla dialect;<sup>5</sup> and in 1855, he did the same for the Mishmi dialects.<sup>6</sup> In 1869, Lieutenant W. J Williamson communicated a very small comparative vocabulary of the Gaió and Konch dialects.<sup>7</sup>

In the Manipurí group the Manipurí language itself is the most important. A list of words belonging to it was communicated as early as 1837 by the Rev N. Brown in his comparative vocabulary, mentioned in the remarks on the Nepalese group.<sup>8</sup> A somewhat fuller list, given in 1855, in Lieutenant R Stewart's comparative vocabulary

---

<sup>1</sup> J A S B, Vol. VI, pp 1023, 1032    <sup>2</sup> *Ibid*, Vol. XVIII, pp 207, 456, pp 318, 342, 969, pp 215, 456, pp 224, 969, pp 323, 969, pp 330, 342, p 456  
<sup>3</sup> *Ibid*, Vol. XIX, pp 309, 311    <sup>4</sup> *Ibid*, Vol. XXIV, pp 582, 656, and Vol. XLI, p 29, Vol. XLII, Appendix, Vol. XLIV, pp 216, 307, 333    <sup>5</sup> *Ibid*, Vol. XX, p 126    <sup>6</sup> *Ibid*, Vol. XXIV, p 307    <sup>7</sup> *Ibid*, Vol. XXXVIII, p 14  
<sup>8</sup> *Ibid*, Vol. VI, pp 1023, 1033





It may be added that, in 1845, Thomas Latter brought out a grammar of the language of Burmah, as a separate work, under the auspices of the Society.<sup>1</sup>

The leading language among the Trans-Himalayan group is the Tibetan. The first notice of it occurs in 1825, in the fifteenth volume of the *Researches*, which contains a small list of Tibetan (called there 'Tartar or Bhotia') words collected in 1819 by Captain J. D. Herbert.<sup>2</sup> The following volume of 1828 contains a memoir by Mr B. H. Hodgson on the language and literature of Bhot or Tibet.<sup>3</sup> One of the earliest and best students, however, of the language and literature of Tibet, was the well-known Hungarian traveller, Alexander Csoma Korösi. His grammar and dictionary, published by the Society at the expense of the Indian Government in 1834,<sup>4</sup> were the first of their kind, and are deservedly held in high esteem. From his pen there also appeared at various times numerous analyses of Tibetan works; thus, in the *Journal* for 1832,<sup>5</sup> an abstract of the contents of the *Dulva*, or first portion of the *Kahgyur*; in that for 1834 some observations on Tibetan symbolical names used as numerals;<sup>6</sup> in that for 1835, an analysis of a medical work;<sup>7</sup> in the *Researches* for 1836, an analysis of the whole of the *Kahgyur*, including both the first and second portions of that voluminous work;<sup>8</sup> also notices of the life of Shakyä, extracted from Tibetan authorities,<sup>9</sup> and an abstract of the contents of the *Tangyur*;<sup>10</sup> in the *Journal* for 1838, notices of the different systems of Buddhism, extracted

<sup>1</sup> See the List of Publications in Appendix C of the Historical Part of the Centenary Review.    <sup>2</sup> *As Res.*, Vol. XV, p. 417.    <sup>3</sup> *Ibid.*, Vol. XVI, p. 409.

<sup>4</sup> *J. A. S. B.*, Vol. III, p. 653.    <sup>5</sup> *Ibid.*, Vol. I, pp. 1, 269, 375, Vol. II, p. 365, Vol. III, p. 57, see also Vol. II, p. 367.    <sup>6</sup> *Ibid.*, Vol. III, p. 6.    <sup>7</sup> *Ibid.*, Vol. IV, p. 1.    <sup>8</sup> *As Res.*, Vol. XX, pp. 41, 393.    <sup>9</sup> *Ibid.*, p. 285.    <sup>10</sup> *Ibid.*, p. 553.

from the Tibetan authorities,<sup>1</sup> and an enumeration of historical and grammatical works to be met with in Tibet.<sup>2</sup> So far the Tibetan language was treated by itself, but in 1849, Mr. W. Robinson published some remarks on those points of its grammar "on which information appeared to be requisite to aid in instituting a comparison between this language and the dialects spoken by the adjoining tribes." A very small list of words intended to subserve a similar purpose had been already communicated by Mr. S. W. Williams in 1838.<sup>4</sup> In 1865, the Rev. H. A. Jaeschke contributed a note on the pronunciation of the Tibetan language.<sup>5</sup> This language possesses a not inconsiderable number of dialects, two of which, the Changlo and the Balti, have been noticed in the Journal. Of the former, Mr. W. Robinson supplied an outline grammar in 1849;<sup>6</sup> of the latter, Captain H. H. Godwin-Austen contributed a small vocabulary in 1866.<sup>7</sup>

Another language belonging to the Trans-Himalayan group is the Kunawarí, spoken in the territory of the Rája of Bussahir, in the Panjáb. It was noticed as early as 1825 in the fifteenth volume of the *Researches* by Captain J. D. Herbert, who, in 1819, collected a comparative list of Kunawarí and Tibetan words.<sup>8</sup> A much fuller vocabulary, comparing Tibetan with two distinct dialects of the Kunawarí,—*viz.*, the Milchan and the Tibarskad,—was published in 1842.<sup>9</sup>

Seven other languages classed in the same group—the Thochu, Sokpá, Gyámi, Gyáruŋg, Hoipa, Tákpa, and Manyak,—are only known from a small comparative vocabulary published by Mr. B. H. Hodgson in 1853.<sup>10</sup>

<sup>1</sup> J. A. S. B., Vol. VII. p. 142    <sup>2</sup> *Ibid.* p. 147    <sup>3</sup> *Ibid.*, Vol. XVIII. p. 194    <sup>4</sup> *Ibid.*, Vol. VII. p. 703    <sup>5</sup> *Ibid.*, Vol. XXXIV. p. 91    <sup>6</sup> *Ibid.*, Vol. XVIII. p. 202    <sup>7</sup> *Ibid.*, Vol. XXXV. p. 233    <sup>8</sup> *As Res.*, Vol. XI. p. 417  
<sup>9</sup> J. A. S. B., Vol. XI. p. 479    <sup>10</sup> *Ibid.*, Vol. XXII. pp. 121, 142

On and beyond the eastern frontiers of India there exist a large number of languages or dialects which exhibit a distinct relationship to the language of China, and hence are commonly called Indo-Chinese. They may be divided provisionally into three families,—the Tay, the Mon-Anam, and the Khasi. The affinities of these with the Tibeto-Burman were discussed by Mr B H Hodgson in a memoir published in 1853,<sup>1</sup> and again by Mr R. Cust, in a pamphlet, originally inserted in the Transactions of the Philological Society, but afterwards, in 1877, reprinted in the Proceedings of the Asiatic Society.<sup>2</sup>

To the first named family belong the following languages—the Siamese, the Khamti, the Lao, the Shan, and the Ahom. Notices of them occur very early, the first in 1798, in the fifth volume of the Researches, in a comparative vocabulary prepared by Dr. F Buchanan,<sup>3</sup> the second, in the tenth volume of 1808, in a memoir on the language and literature of the Indo-Chinese nations, by Dr. J Leyden.<sup>4</sup> In 1836, Captain James Low published a memoir on Siamese literature,<sup>5</sup> and in 1837 the Rev N Brown, a small comparative list of Siamese and Khamti words.<sup>6</sup> The latter also contributed in the same year some account of the ancient Ahom language and its peculiar characters.<sup>7</sup> In 1849, Mr. W Robinson published an outline grammar and a short vocabulary of the Khamti language,<sup>8</sup> and in the following year, 1850, Mr B H Hodgson, a comparative vocabulary of the Siamese, Khamti, Laos and Ahom languages.<sup>9</sup>

To the Mon-Anam family belong the Anamese, the

<sup>1</sup> J A S B, Vol XXII, p 1    <sup>2</sup> Proceedings for 1877, p 205    <sup>3</sup> As Res, Vol V, p 227    <sup>4</sup> *Ibid*, Vol X, pp 240, 257    <sup>5</sup> *Ibid*, Vol XX, p 338  
<sup>6</sup> J A S B, Vol VI, p 1031    <sup>7</sup> *Ibid*, p 17    <sup>8</sup> *Ibid*, Vol XVIII, pp 311, 342  
<sup>9</sup> *Ibid*, Vol XIX, p 311

Mon and the Khomen, some account of all of which was published in 1808 by Dr. J. Leyden in the tenth volume of the *Researches*.<sup>1</sup> A very small list of Anamese words was communicated by the Rev. N. Brown in 1837,<sup>2</sup> and of Mon words, by the Hon'ble G. Campbell in 1867.<sup>3</sup>

Of the Khasi language there is a very small list of words in the *Journal* for 1841, communicated by Mr. B. H. Hodgson.<sup>4</sup> In the following year, 1849, Mr. W. Robinson added an outline grammar and somewhat larger vocabulary, comparing Khasi words with those of the Tibeto-Birman languages.<sup>5</sup>

On the islands of the Indian Ocean there exist a number of languages, which belong to the Malayan stock. Many of these languages early attracted the notice of the Society, which, however, was afterwards almost entirely withdrawn, as was natural, in favour of the many subjects of interest lying nearer home. A small list of words of the Malayan language spoken in the Nicobar Isles was communicated, as early as 1792, in the third volume of the *Researches*, by Mr. Nicolas Fontana, in connection with a brief account of that group of islands.<sup>6</sup> A somewhat larger vocabulary was published eighty years later by Mr. E. H. Mau in the *Journal* for 1872.<sup>7</sup> Another small list of words of the Malayan language spoken by the inhabitants of the Pogy (Pagai) or Nassau Islands lying off Sumatra, was communicated as early as 1799, in the sixth volume of the *Researches*, by Mr. John Crisp.<sup>8</sup> A little later, in 1808, Dr. J. Leyden gave some account of the Jawi, the Javanese, the Bugi, the Bima, the Batta, and the Gala or Tagala, of which the

---

<sup>1</sup> *As Res*, Vol. X, pp. 239, 257, 261      <sup>2</sup> *J. A. S. B.*, Vol. VI, p. 1031      <sup>3</sup> *Proceedings* for 1867, p. 51  
<sup>4</sup> *J. A. S. B.*, Vol. XVII, Part I, p. 547      <sup>5</sup> *Ibid.*, Vol. XVIII, pp. 336, 342      <sup>6</sup> *As. Res*, Vol. III, p. 157      <sup>7</sup> *J. A. S. B.*, Vol. XLI, p. 1  
<sup>8</sup> *As Res*, Vol. VI, pp. 77, 90

first mentioned is the name of the written Malayan language, while the others are the names of the Malayan language as spoken in the islands of Java, Celebes, Sumbáwa, Sumatra, and the Philippines, respectively <sup>1</sup> Some further information on these languages was communicated by Mr. Thomas Raffles, in 1816.<sup>2</sup> A specimen of the ancient Malayan language, called the Kawi, was communicated by Mr John Crawford in 1820, in connection with an account of the island of Bali <sup>3</sup> A short notice of the alphabets of the Philippine islands, with an illustrative plate, was published in 1815 by Mr. H. Piddington, who extracted it from a Spanish work of Don Simbaldo de Mas <sup>4</sup>

The Muhammadan conquest introduced the Persian and Arabic languages into India, and then knowledge and cultivation is still widely diffused among that portion of the population of India which professes the Muhammadan faith It was natural, therefore, that, from the beginning the Asiatic Society extended its researches to the language and literature of Arabia and Persia But, as in the case of the Sanskrit, the energies of the Society were principally directed to the publication of texts and translations of rare and valuable Arabic and Persian works in the *Bibliotheca Indica*

All the earlier publications were Arabic works, except one, Nizámí's celebrated *Sikandarnámah*, of which however only about one half was edited in 1852 by Dr Sprenger and Aghá Muhammad Shúshterí jointly <sup>5</sup> The remaining portion was not published until 1869, when it was edited by Maulvi Aghá Ahmad 'Alí <sup>6</sup> The same Maulvi also wrote an elaborate introduction to the *Sikandarnámah*, which was printed in 1874 as a separate work under the

<sup>1</sup> *As Res*, Vol X, pp 163, 189, 192, 198, 202, 207      <sup>2</sup> *Ibid*, Vol XII, p 102

<sup>3</sup> *Ibid*, Vol XIII, p 162      <sup>4</sup> *J A S B*, Vol XIV, p 603      <sup>5</sup> See the list of the

*Bibliotheca Indica* in Appendix C to the Historical Part of the Centenary Review, for this and the other works mentioned hereafter      <sup>6</sup> *Proceedings* for 1870, p 30.



is a voluminous work, of which manuscripts are only with great difficulty procurable. When the work, in 1853, was commenced, no complete manuscripts appear to have existed, and in 1856 it was dropped in the middle of the second volume for want of them. In 1864 it was determined to complete the dictionary as far as possible, and the fourth volume was published by Maulvi 'Abdul Hai. In 1873, unexpectedly three manuscripts of the second and third volumes turned up in the possession of Maulvi Kabiruddín Ahmad. These are now being published by Maulvi 'Abdul Hai, and there is every hope of completing this important work.<sup>1</sup> These two works were published under Dr. A. Sprenger's superintendence. The third, the *Fihrist-ut-Túsi*, a descriptive list of Shi'ah works, was published by Dr. Sprenger himself, who also edited one of the Appendixes to the second named work, called the *Risálah Shamsíyah* and treating of the Logic of the Arabians. Two years later, in 1855, Mr. Alfred von Kremer prepared an edition of Al Wáqidí's *Kitáb-ul-Maghází*, which narrates the history of Muhammad's campaigns. It was made from a single manuscript discovered by the editor in Damascus in 1851, and, as unfortunately the manuscript was a fragment, the edition could not be completed. Two complete manuscripts, however, have been procured not very long ago, and it may now be hoped that a new and complete edition of this important work will soon be published in Germany.<sup>2</sup>

In 1856 a change took place in the selection of works for publication in the *Bibliotheca Indica*. An objection having been raised by the Court of Directors to the selection being bestowed mainly on works in Arabic, it was resolved by the Society to devote the funds at its disposal

<sup>1</sup> Proceedings for 1874, pp. 32, 33.

<sup>2</sup> *Ibid* for 1881, p. 29.



to the institution of a Persian series which should contain chiefly works on the history of India,<sup>1</sup> giving the preference, when possible, to writers contemporary with the events which their histories chronicle.<sup>2</sup> The first work selected on this new plan was the *Tarikh-i-Firúz-Sháhi* by Zia'uddín Barní, who brings the history of the Muhammadan sovereigns of India down to the sixth year of the reign of Firúz Sháh, the nephew of Ghiyásuddín Tughlaq Sháh. The edition of his work was commenced in 1860 by Maulvi Sayyid Ahmad Khán, under the superintendence of Captain W. N. Lees.<sup>3</sup> The next work of the series was Abul Fazl Baihaqí's history of Ma'asúd, the son of Mahmúd of Ghazni, edited in 1861 by Mr. W. H. Morley. It is commonly styled the *Tarikh-i-Baihaqí*, but it is simply a portion of a very much larger work in several volumes, entitled the *Tarikh-i-ál-i-Subuktagín*, which relates the history of the descendants of Subuktagín, the father of Mahmúd the Great.<sup>4</sup> In 1863 followed the *Tabaqát-i-Násiri* by Minhájuddín Al Jurjání, edited by Captain W. Nassau Lees, in conjunction with Maulvis Khádim Husam and 'Abdul Hai. This work, however, is rather a book of dynasties than a history of any particular dynasty or number of reigns, with the exception of the author's contemporary, the emperor Násiruddín Mahmúd, of whose reign he gives a much fuller account. In his time Muhammadan India was divided into four kingdoms, those of Hindustan, Bengal, the Panjáb and Sindh; and the peculiar and important feature of the *Tabaqát-i-Násiri* is, that it gives a biographical sketch of the contemporary

<sup>1</sup> J. A. S. B., Vol. XXV, pp. 427, 455. See Journal R. A. S., Vol. III (N. S.), pp. 419, 420. <sup>2</sup> J. A. S. B., Vol. XXXIII, p. 165. See Journal R. A. S., Vol. III (N. S.), p. 420. <sup>3</sup> Proceedings for 1861, pp. 54, 55, for 1863, p. 1. See Journal R. A. S., Vol. III (N. S.), pp. 121, 422. <sup>4</sup> See Journal R. A. S., Vol. III (N. S.), p. 121.

rulers of all these kingdoms, as also of the countries beyond the Indus<sup>1</sup> An English translation of this important history, beginning with the seventh section of the original, was undertaken in 1873 by Major H G Raverty, who added numerous and valuable notes elucidatory of the text<sup>2</sup> The fourth history of the Persian series is the *Muntakhab-ut-Tawáíkh* of 'Abdul Qádir, the Badáoní, which was edited in 1864 by Captain W Nassau Lees in conjunction with Maulvis Kabíruddín Ahmad and Munshi Ahmad 'Alí, and which, as a history, is second to none in the whole range of historical works by Muhammadan authors. Though it professes to be simply an abridgment of Nizámuddín Ahmad's *Tabaqát-i-Akbar Sháhí*, its great value lies in its giving a view of the character of the great emperor Akbar from an opposition point, a somewhat rare qualification in a contemporary Muhammadan historian<sup>3</sup> The next history in the series was the *Iqbál-námah-i-Jahángír* by Mu'tamad Khán, the confidential secretary of the emperor Jahángír, by whose command he wrote that emperor's memoirs No writer of the period was more competent or more favourably circumstanced for writing a history of the reign of Jahángír<sup>4</sup> It was edited in 1865 by Maulvis 'Abdul Haqq and Ahmad 'Alí

In the following year, 1866, the edition of two histories was commenced. These were Muhammad Qásim's *Alam-gínámah*, a court chronicle of emperor Aurangzib's reign from its thirty-second year, edited by Maulvis Khádim Husain and 'Abdul Hai; and the *Bádsháh-námah* of

<sup>1</sup> See Journal R A S, Vol III (N S), pp 138, 139    <sup>2</sup> Proceedings for 1873, pp 34, 38    <sup>3</sup> *Ibid* for 1870, p 30 See also Journal R A S, Vol III (N S) pp 451, 452, 455    <sup>4</sup> Proceedings for 1865, p 114 See also Journal R A S, Vol III (N S), p 459

'Abdul Hamíd Lahaurí, one of the principal authorities in the reign of the emperor Sháhjahán, edited by Maulvis Kabíruddín Ahmad and 'Abdur Rabím.<sup>1</sup> In 1867 followed the *Ain-i-Akbarí*, or Institutes of Akbar, by the celebrated Abú'l Fazl, which some consider simply the third volume of the same author's *Akbarnámah*, but which is a large work in three volumes, complete in itself.<sup>2</sup> It was edited by Mr H. Blochmann, who added an introductory English Biography of Abú'l Fazl. He also undertook, in the following year, 1868, an English translation accompanied with very valuable notes. Unfortunately, owing to the lamented death of the author, no more than one volume, about one-half of the whole, has been published. In the same year, 1868, the edition of another history of the reign of the emperor Alamgír was commenced, the *Muntakhab-i-Lubáb*, commonly called, from its author, the *Táíikh-i-Kháfi Khán*. It is the most comprehensive and most important of the histories of that period, being written by a person of singular capabilities for his task, who, moreover, was a contemporary with Aurangzib for the greater portion of his reign.<sup>3</sup> It was edited by Maulvis Kabíruddín Ahmad and Ghulám Qádu. Two years later, in 1870, was added a third history of the same reign, the *Maásn-i-Alamgírí* by Muhammad Saqí Musta'id Khán, edited by Maulvi Aghá Ahmad 'Alí. It is a small work, but its author had good opportunities of consulting the records of Government and of obtaining information regarding the events of Aurangzib's reign.<sup>4</sup> The last of the Persian historical series, as yet published, was commenced in 1873. It is the celebrated *Akbar-*

<sup>1</sup> See Journal R. A. S., Vol. III (N. S.) pp. 462, 464. <sup>2</sup> *Ibid.*, p. 471.

<sup>3</sup> Proceedings for 1874 p. 33. See also Journal R. A. S., Vol. III (N. S.), pp. 464, 465, 466.

námah of Abú'l Fazl, which is pronounced by all competent judges to be an admirable history of the great emperor Akbar's reign, but from the most favourable point of view,—a memoir, in short, warranted to reflect only his virtues<sup>1</sup> It was edited, at first, by Maulvi Aghá Ahmad 'Alí, after whose death it is being continued by Maulvi 'Abdur Rahím<sup>2</sup>

Besides these historical works only two other works in Persian have been published One is the *Wís o Ramín*, a romance of ancient Persia translated from the Pehlavi into Persian verse by Fakhrúddín, the Junjání It was edited, in 1864, by Captam W N Lees and Munshi Ahmad 'Alí The other is the *Fahang-i-Rashídí*, an edition of which was commenced by Maulvi Zulfiqár 'Alí in 1870 and completed by Maulvi Azíz ur Rahman in 1875 This work is a dictionary of the Persian language, which was compiled in 1061 A H by Sayyid 'Abdur Rashíd of Tattá in Sindh, one of the best grammarians and lexicographers that India has produced It is based on a critical examination of the numerous preceding dictionaries, and has itself been the basis of all later writers on Persian lexicography. The editors have added valuable notes from Surúfí, Jahángírí and the *Snaj*<sup>3</sup>

Of Arabic works there are only two among the later editions included in the *Bibliotheca Indica* These are the *Nokhbat-ul-Fikr*, with the commentary called *Nozhat-un-Nazr*, by Shahábuddín Ahmad Ibn Hajar al Asqalání, the author of the celebrated *Isábah*, previously mentioned; and an English translation of Jaláluddín As-Suyutí's *Tárikh-ul-Khulfa* or "History of the Caliphs" The former was

<sup>1</sup> Proceedings for 1870, p 33 See also *Journal R A S*, Vol III (N S), pp 470 471 <sup>2</sup> Proceedings for 1874, p 34 <sup>3</sup> *Ibid* <sup>4</sup> *Ibid* for 1875, p 32, and for 1876, pp 24 25

edited in 1862 by Captain W. N. Lees, in conjunction with the Maulvis 'Abdul Haqq and Gholám Qádir; the latter by Major H. S. Jarrett, who introduced his translation with a short memoir of the author.

Besides these larger publications, a number of smaller contributions were published from time to time in the *Transactions of the Society*. As early as 1790, in the second volume of the *Researches*, there is an essay on the Arabic elements received into the Persian language.<sup>1</sup> This was followed in 1805 by another essay by Mr. Francis Balfour, in which he gave extracts from the *Tahzib-ul-Mantiq*, or 'Essence of Logic,' as a small supplement to Arabic and Persian grammar, and with a view to elucidate certain points connected with Oriental literature.<sup>2</sup> In the *Journal* for 1834 was commenced, and continued in the following years, a translation, prepared by Baron Joseph von Hammer, of an Arabic work, the *Mohit*, on navigation in the Indian seas. The author of the original work was Sídí al Chelebi (Sídí 'Alí Capudán), Captain of the fleet of the Turkish Sultan Suleiman, who finished his book at Ahmedabad, the capital of Gujarát, in the year 1554.<sup>3</sup> In the volume for 1843, Dr. A. Sprenger published a translation of another Arabic work, *Kashf-us-salsalah 'an wasf-uz-zalzalah*, on earthquakes by Jaláluddín As-Sayútí.<sup>4</sup> The same contributed, in 1848, notices of some copies of the Arabic scientific work, entitled *Rasáyil Ikhwán-us-safá*, which, by the novelty of its ideas, the peculiarity of its style, and even of its language, had created considerable sensation.<sup>5</sup> In 1850, Sir Henry Elliot com-

<sup>1</sup> *As Res*, Vol II, p 208    <sup>2</sup> *Ibid*, Vol VIII, p 89    <sup>3</sup> *J A S B*, Vol III, p 545, Vol V, p 441, Vol VI, p 805, Vol. VII, p 767    <sup>4</sup> *Ibid*, Vol XII, p 741    <sup>5</sup> *Ibid*, Vol XVII, Part I, p 501

communicated, from Dr Sprenger, a notice of a copy of the fourth volume of the original Arabic text of the history of Tabari which gives the life of Muhammad, and of which no other copy was at that time known to exist.<sup>1</sup> Dr. Sprenger himself contributed in 1851 some observations on the physiology of the Arabic language,<sup>2</sup> and on the initial letters of the nineteenth Sûrah of the Qorân.<sup>3</sup> In the same year, Babu Nara Simha Datta published a translation of a Persian dialogue between Aristotle and Buzurjumihr on morals, called the Zafarnámah.<sup>4</sup> In 1852, Dr. Sprenger continued his contributions with a paper on foreign words occurring in the Qorân.<sup>5</sup> In the volumes for 1853 and 1854 were published several lists of Arabic and Persian works belonging to the libraries at Leyden, Aleppo and in the possession of Sir Henry Elliot.<sup>6</sup> In 1856, Dr. A. Sprenger again contributed notices on Mr. Alfred von Kremer's edition of Wáqidî's Campaigns,<sup>7</sup> and on the Dawá-ul-Qalûb of Mohá-sabî, the earliest work on Súfism yet discovered, and on an Arabic translation of a work ascribed to Enoch,<sup>8</sup> also an essay on the origin and progress of writing down historical facts among the Mussalmans.<sup>9</sup> In 1860, Professor E. B. Cowell communicated a paper on a few mediæval apologies<sup>10</sup> and an analysis of the Qúân-us-Sa'dain, a Persian poem by Mîr Khusrâu, describing the contemporary contest between the emperor Kaikobád and his father.<sup>11</sup> In 1863, Dr. A. Sprenger contributed some remarks on Barbier de Meynard's edition of Ibn Khordádbeh and on the land-tax of the empire of the Khalifs.<sup>12</sup> In 1868, Mr. H. Blochmann published some

<sup>1</sup> J A S B, Vol XIX, p 108. See also Vol XX, p 195, for a short notice of a manuscript of the first volume in the Society's library. <sup>2</sup> *Ibid*, Vol XX, p 115. <sup>3</sup> *Ibid*, p 280. <sup>4</sup> *Ibid*, p 426. <sup>5</sup> *Ibid*, Vol XXI, p 109. <sup>6</sup> *Ibid*, Vol XXII, p 535, Vol. XXIII, pp 44, 225. <sup>7</sup> *Ibid*, Vol XXV, pp 53, 199. <sup>8</sup> *Ibid*, p 133. <sup>9</sup> *Ibid*, pp 303, 375. <sup>10</sup> *Ibid*, Vol. XXIX, p 10. <sup>11</sup> *Ibid*, p 225. <sup>12</sup> *Ibid*, Vol XXXV, p 124.

contributions to Persian lexicography, in which he described a large number of Persian dictionaries compiled by natives of India.<sup>1</sup> In the following year, 1869, he added a memoir on the historian 'Abdul Qádir, called the Badáoní, and his works.<sup>2</sup> In the same year was also published the commencement of a translation from the *Tárikh-i-Fúúz Sháhí*, prepared by Major A. R. Fuller, which was continued in the two following years, 1870 and 1871, the last portion being by Mr. P. Whalley.<sup>3</sup> In 1874, Mr. J. O'Kinealy published a translation of an Arabic pamphlet on the history and doctrines of the Wahhábís, written by 'Abdullah, grandson of 'Abdul Wahháb, the founder of Wahhabism,<sup>4</sup> Mr. E. C. Ross, a translation of the annals of 'Oman from early times to the year 1728 A D ;<sup>5</sup> and Mr. G. H. Damant, the Persian text of the *Risálat-ush-Shuhadá*, or "Book of Martyrs," containing an account of Ismá'il Ghází of Kántá Duár, in the Rangpur district.<sup>6</sup> In 1876, Mr. P. Whalley contributed some translations from the *Diwan* of Zíb-un-nissá Begum, poetically styled Makhfí, daughter of the emperor Aurangzíb.<sup>7</sup> In 1877, Mr. C. J. Lyall published a translation of the fourth of the seven *Mo'allaqát* or "Suspended Poems," that of Lebíd, to which he added a notice of the life of that poet as given in the *Kitáb-ul-Aghání*.<sup>8</sup> In the following year he added a translation, together with the text, of the *Mo'allaqah* of Zuheyr.<sup>9</sup> In the volume of the previous year, 1871, he had also commenced to publish translations from the *Hamáseh* and the *Aghání*, which he continued in the volume for 1881.<sup>10</sup> There are also in the volume for 1877 some metrical trans-

<sup>1</sup> J. A. S. B., Vol. XXXVII, p. 1    <sup>2</sup> *Ibid.*, Vol. XXXVIII, p. 105    <sup>3</sup> *Ibid.*, p. 181, Vol. XXXIX, p. 1, Vol. XL, p. 185    <sup>4</sup> *Ibid.*, Vol. XLIII, p. 68    <sup>5</sup> *Ibid.*, p. 111    <sup>6</sup> *Ibid.*, p. 222    <sup>7</sup> *Ibid.*, Vol. XLV, p. 308    <sup>8</sup> *Ibid.*, Vol. XLVI, p. 61    <sup>9</sup> *Ibid.*, Vol. XLVII, p. 1    <sup>10</sup> *Ibid.*, Vol. XLVI, pp. 168, 437, Vol. L, p. 107

lations from the quatrains of 'Umai Khayyám, contributed by Mr P Whalley <sup>1</sup>

In connection with the Arabic language may be mentioned a report, by Lieutenant J R Wellsted, on the island of Socotra. In it he gives a small list of words of the language of the islanders, who appear to be immigrants from Arabia <sup>2</sup>

The Asiatic Society, true to its name, did not limit its philological researches to the languages of India, or of countries nearly connected with India. Those of countries, more or less distant in geographical position or historical relation, like China, Armenia, Turkistan, also received an occasional notice. Thus, in the second volume of the *Researches* of the year 1790, Sir W. Jones published some account of the second classical book of the Chinese, the *Shu-king*, containing three hundred odes or short poems in praise of ancient sovereigns and legislators, or descriptive of ancient manners. Of one of these odes he added the original text, together with a literal and a free translation.<sup>3</sup> Much later in 1843, Mr. H. Piddington republished in the *Journal* the introduction to a paper on the study of the Chinese language written by Mr. Stanislas Julien <sup>4</sup>

The first contribution on the language of Turkistan was made in 1835. In the *Journal* of that year Mr H. Wathen published a memoir on Chinese Tartary and Khoten, to which he appended a small list of words of the Turkí dialect spoken at Yarkand <sup>5</sup> Nothing more was done till 1877, when Mr R B Shaw published a grammar of the language of Eastern Turkistan.<sup>6</sup> Three years later,

---

<sup>1</sup> J A S B, Vol XLVI, p 158      <sup>2</sup> *Ibid*, Vol IV, pp 138, 165      <sup>3</sup> *As Res*, Vol II, p 195      <sup>4</sup> J A S B, Vol. XII, p 816.      <sup>5</sup> *Ibid*, Vol IV, pp 653, 663  
<sup>6</sup> *Ibid*, Vol XLVI, p 242



in 1880, he added a fairly complete vocabulary of the same language, to which was appended a list of names of birds and plants prepared by Dr. J. Scully.<sup>1</sup>

On the literature of Armenia, there is one contribution in the Transactions of the Society. It occurs in the Journal for 1868, and is an account, by Mr. Johannes Avdalk, of twenty-five authors of Armenian grammars from the earliest stages of Armenian literature up to that year.<sup>2</sup>

Besides the languages and literature of India, other matters more generally connected with the subject of philology found an occasional notice in the pages of the Journal. The volume for 1859 contains the well-known paper on the introduction of writing into India, by Professor Max Muller, which was afterwards printed in his *History of Ancient Sanskrit Literature*<sup>3</sup> Some remarks on the ancient art of writing and the relation of the Indian to the Semitic alphabets by Mr. H. Blochmann and Babu Rájendralála Mitra were published in the Proceedings of 1865.<sup>4</sup> In the following two years the discussion of that subject, with respect to the origin and course of development of the Aryan alphabets, was continued by Mr. E Thomas, the Hon'ble G. Campbell, Babu Rájendralála Mitra, and Rev. K. M. Banerjea.<sup>5</sup> Another subject closely connected with the ancient Indian alphabet is that of the ancient Indian numerals. A memoir on this subject was contributed in 1855 by Mr. E Thomas, in which he revised and much extended the original discovery of those numerals made, as already alluded to in a former place,<sup>6</sup> by Mr. J. Prinsep as early as 1838.<sup>7</sup> Some years later,

<sup>1</sup> J A S. B., Extra Number for 1880.    <sup>2</sup> *Ibid*, Vol XXXVII, p 134.

<sup>3</sup> *Ibid*, Vol XXVIII, p 137    <sup>4</sup> Proceedings for 1865, pp 171, 174    <sup>5</sup> *Ibid*. for 1866, p 138, for 1867, pp 33-51    <sup>6</sup> See p 35.    <sup>7</sup> J A. S. B., Vol XXIV, p 551, see also Vol VII, p 348.

in 1863, another paper on the same subject was published by Dr. Bhau Daji of Bombay, whose successful decipherment of the numerical symbols occurring in the Násik cave inscriptions enabled him to greatly improve and consolidate our knowledge of the ancient Indian method of expressing numbers in writing<sup>1</sup>

The system of transliteration elaborated by Sir W. Jones has already been mentioned. This was a subject which would necessarily come to the front, from time to time, the more the study of oriental languages and literature progressed. Thus we find in the *Journal* for 1864 a paper on the application of the characters of the Roman alphabet to oriental languages contributed by Captain W. Nassau Lees,<sup>2</sup> and another paper, in 1857, on the transliteration of Indian alphabets in the Roman characters, by Mr F. S. Growse.<sup>3</sup> Somewhat analogous to the subject of transcribing oriental characters into those of Europe, is the question of translating European technical terms into oriental languages. Some discussions on this subject, initiated by the Hon'ble G. Campbell, took place in the Society in 1866, the substance of which is recorded in the *Proceedings* of that year.<sup>4</sup>

---

<sup>1</sup> *J. A. S. B.*, Vol. XXVII, p. 161  
Vol. XXXVI, p. 136

<sup>2</sup> *Ibid.*, Vol. XXXIII p. 345

<sup>3</sup> *Ibid.*

<sup>4</sup> *Proceedings* for 1866, pp. 129, 131, 141, 159,

## LIST OF ERRATTA AND ADDENDA

---

- Page 35, line 21, *read* "1835" *for* "1834 "
- " 35, " 23, " "three" *for* "two "
- " 35, " 24, " "1838" *for* "1836 "
- " 69, " 12, " "to our era" *for* "of our era "
- " 79, " 27, " "form" *for* "forms "
- " 113, " 10, " "era" *for* "era era "
- " 121, " 26, " "Śrīkarnna" *for* "Śrī Karlla "
- " 122, " 29, " "Mahāla" *for* "Mahāāla "
- " 122, " 30, " "Gaharwāras" *for* "Gaharwālas "
- " 130, " 25, 26, " "upon" *for* "from "

On page 50, line 19, with regard to the name *lutīla* it may be added that a photo-zincographed copy of the Bareilly inscription is published in Vol I of the Archaeological Survey Reports of General Cunningham. The word *lutīla* occurs in the last line. It is clearly not a mislection for *lumuda* as erroneously stated in J A S B, Vol XXXIII, p 226

On page 130, add to footnote 2 "General Cunningham makes A D 1107 to be the initial year of the Sena era, see his Archaeological Survey Reports Vol XV p 160 "

## Appendixes

### *To the Chapter on History*

---

#### NO. I.

With regard to the events that led to the change of dynasty in Kanauj at the time of the accession of the (so-called) Rathors, I would venture to make a suggestion for further consideration. The Basáhi land-grant, published in the Journal A S B, Vol XLII, p 321, seems to me to throw light on this point. I do not think the significance of the historical notices contained in the opening verses of that grant has been quite correctly understood.

The *Vijayī* or 'victorious king' of the second verse is Śrī Chandra Deva himself, whose descent is described in that verse. The following verse (No 3) relates the circumstances under which he obtained the throne of Kanauj. In this verse (No 3) it is stated that after the death of a king Śrī Bhoja, there were troublous times under a king Śrī Karnna,\* to which Śrī Chandīa Deva put an end by possessing himself of the country. The king Bhoja, I take to be Bhoja Deva II of the earlier Kanauj dynasty, who reigned about A D 925-950, for his father Mahendra Pála was still reigning in A D 921 (see Genl Cunningham's Archæological Reports, Vol IX, p 85). Bhoja Deva II's son, Vinayaka Pála Deva, may, therefore, be put down to A D 950-975. About this time a Rájá Kokalla II, of the Kalachuri dynasty, was on the throne of Chedi (see *ibid*, p 85). He and his successors, Gángeya Deva and Karna Deva, carried on many successful wars. They must have invaded the territories of Mahoba and Kanauj, for Gángeya Deva is recorded to have died at Prayága, and his coins are found on the site of Kanauj. Karna Deva must have reigned about A D 1025-1050, as he is recorded to have been a contemporary of Bhíma Deva of Gujarát (A. D 1022-1072) and of Bhoja Deva of Dhár (A D 1021-1042), see *ibid*, p 86. This makes him also a contemporary of Śrī Chandra Deva, the first Rathor king of Kanauj (about A D 1050). I take it, therefore, that the inscription refers to Karna Deva of Chedi.

---

\* Not *Sīkharlla*, as given in the transcript, see the following footnote

Further, in the second verse, Chandra Deva is called a son of Mahāla, which is either a mere provincialism or a clerical error for Mahītala. By the same name (Mahītala) Chandra Deva's father is called in the Rāhan land-grant of Govinda Chandra, published in the Proceedings for 1876, p 131 \*. Usually his father is called Mahīchandra, while his son is always called Madanapāla †. This fact shows that the term Chandra was by no means so distinctive, as is often thought, of the Kanauj royal family. Terms like chandra, tala, pāla were interchangeable appendages to the actual name, and Mahīchandra might also call himself Mahītala or Mahīpāla. The Sārānāth inscription of Mahīpāla is dated A. D 1026,—a date which synchronises with Chandra Deva's father Mahīchandra, *alias* Mahīpāla. The father of the Sārānāth Mahīpāla was Vīgrahapāla, while the father of Mahīchandra is called Yaśo-Vīgraha. As Pāla and Chandra are interchangeable, I take Vīgrahapāla and Mahīpāla of Benares as likely to be the same as Yaśo-Vīgraha and Mahīchandra (*alias* Mahīpāla), the ancestors of Chandra Deva. Dates and names favour the identification.

But more, the date of Vīgrahapāla and Mahīpāla is from A. D 991

\* The Basāhī plate spells सद्दितल *mañtala*, but the Rāhan plate spells सद्दितल *māñtala*. The name Mahītala means 'the very earth'. It is an unusual name, and if it were not for the fact that it agrees with the metre (Upeṇḍravajrā) of the verse in which it occurs, one would be inclined to look upon it as one of the clerical errors (for Mahīpāla) with which this particular record abounds. The copper-plate is among the Society's collection, where I have examined it, and verified the correctness of the printed transcript of the second verse. As it is, 'Mahītala' evidently owes its origin merely to the exigencies of the metre. Of the other grant, published in the Journal for 1873, I have not seen the original, which appears to be in Allahabad. But I possess, through the kindness of Mr J F Fleet, a very carefully prepared ink-impression, which clearly shows the name to be Mahāla, not Mahīla as published in the Journal. In all probability 'Mahāla' is a clerical error, apparently for 'Mahītala,' but the latter is not required by the metre of the verse (No 2), which is a śloka, and which admits of reading 'Mahīpāla' equally well. I may add here that the ink-impression clearly proves the name of the predecessor of Chandra Deva to be *Karna*, not *Karila* as given in the transcript. The signs for *n* and *l*, which often occur in the grant, are easily distinguishable from each other (क and ल), and the sign of *nn* in the name is a distinct double *nn* (क)

† There may have been a special reason for Madana reverting to the ancestral title of 'Pāla,' in the fact of his extending his kingdom over portions of the old Pāla empire. For two inscriptions of his, dated in his 3rd and 19th years, have been found at Bihār and at Jayanagar near Lakhī Sarai respectively. (See Genl Cunningham's Arch. Survey Rep., Vol XV, p 154.) The Madanapāla of these inscriptions is usually placed among the later members of the proper Pāla dynasty, but beyond the fact of the title of 'Pāla' there is nothing in favor of that theory.

to 1058 (see Appendix, No II, also J A S B, Vol XLVII, p 394), which synchronises with the date of the Chedi rulers, Kokalla II, Gāngeya and Karna. The Chedi rulers were of the Haihaya race (see Genl Cunningham's Arch Rep, Vol IX, p 77), and Vigraphapāla is said to have married Jayī, a princess of the Haihaya race (J A S B, Vol XLVII, p 384). The Palas of Benares and the Kalachuris of Chedi, therefore, were closely allied. Now Vinayakapāla Deva of the earlier Kanauj line possessed Benares about A D 950-975 (J A S B, Vol XXXI, p 5), but, according to the Sirināth inscription, in A D 1026, Mahipala of the Bihār (and Bengal) line is in possession of Benares. The latter therefore must have changed hands in the interval. This must have occurred in the 'troublesome times,' when the Chedi kings conquered Kanauj, while the Palas (allied to them by marriage) conquered Benares.

I imagine the events to have occurred thus. Towards the end of the tenth century the Kalachuris and the Palas, being allied, attacked the kingdom of Kanauj from the South and East, the former took Kanauj, the latter Benares, for Jayapāla, the father of Vigraphapāla, is recorded to have conquered Allahabad (see J A S B, Vol XLVII, p 384). While the direct descendants of Mahipala continued to rule the Bihar and Bengal kingdom, including Benares, one of his younger sons, Chandra Deva, obtained for himself the kingdom of Kanauj, from the Kalachuri king Karna, and founded a new dynasty in Kanauj, which henceforth took from him its special name Chandra, in order, perhaps, to distinguish itself from the original stock of Palas. Hence Vigraphapāla and Mahipala, though named as the ancestors of Chandra Deva, are never included in the royal list of Kanauj.

But further, the Basahī plate of 1873 distinctly states, that Mahipāla and Chandra Deva were of the Gaharwār race of Rājputs\*. The same statement occurs in the land-grant, published in the Proceedings for 1876, p 130. So far as I am aware, it does not occur in any of the land-grants of the Rāthor kings of Kanauj, except these two. In all the other grants, I think, no information whatever is given regarding the particular Rājput clan to which the kings professed to belong. The Rāthor clan is not mentioned in any of them. It has always been taken for granted that the kings of Kanauj were of the Rāthor clan. For this notion there appears to be no other ground than the tradition of the Rāthor princes of Jodhpur.

---

\* The name is spelt गहड़वाद *gāḥḍavāda* in the grants, the modern spelling is गहवरवाद *gahar'war* or (usually) गहरवार *gahar'war*. See Elliot's *Races of the N W Provinces*, Vol I, p 121.

in Márwár who affirm that Sivají, their ancestor, was a son of a child of Jaya Chandra of Kanauj. Now Jaya Chandra is a historical personage, he was the last of the Kanauj kings, who fell in battle with Shahab-ud-din Gorí, as testified by contemporary Muhammadan historians\*. Sivají also is a historical personage, a real ancestor of the Marwár Rathor house. The connecting link between Sivají and Jaya Chandra is a child, otherwise unknown, who is said to have escaped the wreck of his father's house and reign. History, I believe, knows nothing about him, and the tradition about him suspiciously resembles similar traditions of princely houses, who claim ancient descent by the agency of some mysteriously born or preserved child. In any case, if the tradition is correct, it fails to account for the remarkable fact, how a family which was originally Gaharwár, as stated in their own grants, turned into Rathors. In a matter of this kind the evidence of a contemporary land-grant is of more value than a tradition. But, in fact, the traditions, confused and sometimes contradictory as they are, rather support the theory here put forward. It is said that "the Gaharwárs are of the same family as the Rathors, with whom they deem themselves on an equality and with whom it is said they never intermarry." The last statement, however, is only partially true. It does not appear that the (modern) Rathors can be traced further back than the Kanauj family; and Colonel Tod says that a doubt hangs over the origin of the Rathor race, by the bards they are held to be descendants of Kaśyapa†. In reference to the latter point, it may be noticed that the Gaharwárs are of the Kaśyapa gotra or order, though the Rathors now profess to be of the Śāṇḍilya gotra. All these circumstances point to the conclusion that the so called Rathors were an offshoot of the Gaharwárs, and it may well be that about the time of Mahípalá a separation took place in the Gaharwár clan, possibly on religious grounds, for the Pálas professed Buddhism, while the Chandras were Brahmaṇists. The separation was marked by the secession of the latter to Kanauj, and by a change in their nomenclature (Chandra and Rathor, for Pála and Gaharwár). "The Gaharwárs are despised by the other Rájput tribes," according to Tod (*Rajsthán*, Vol I, p 116). The original reason of this treatment may have been their heretical faith in the time of the Pálas. The Rathors would not be the only offshoot from the Gaharwár clan, the well-known Bundels (of Bundelkhand) are another prominent instance of Gaharwar descent. Again "the Gaharwárs assert that they were originally masters of Kanauj, local tradition confirms their

\* See Major Raverty's Translation of the *Tabaqat-i-Nasiri*, p 473

† See his *Rajasthan*, Vol I, p 88 (Reprint, pp 67, 68)

clams, and the Gautama Rájputs attribute their own residence and possessions in the Lower Doab to the bounty of a Gahapwár Rája of Kanauj." This tradition evidently refers to the Rathor rulers of Kanauj, and confirms the statement of their land grants, that they were Gahapwárs. Again "the present chief of the Gahapwárs resides at Kantil near Mirzapur, and tradition says, Gadan Deo, who by some is reckoned the son of Manika Chandra, brother of Jayachandra, the Rathor, came from Benares about the end of the 11th century, and settled at Kantil." This, as Sir Henry Elliot points out, is a confused tradition. Perhaps it points to the secession and emigration from Benares under Sri Chandra, at the time of Mahapala. In any case, it clearly establishes the closest relationship between the Rathors and Gahapwárs. Again "Benares is generally considered the original country of the Gahapwárs, who, it is often asserted, are descended from ancient kings of Benares," and their chief seat is still in the Benares Division and in Bihar. This makes in support of the theory that the Pala kings of Bihar and Bengal, who also ruled in Benares, belonged to the Gahapwár clan, and consequently were closely related to the Rathors of Kanauj.\* It is true there is an indistinct tradition, which ascribes the Pala Rájas to the Bhuinháris race†. But there is no proof of it. In their inscriptions the Palas make no mention of their caste. On the other hand, there are various incidental notices in them, which indicate their having been of a Rájput caste. Thus Vigrahapala is said to have married the princess Lajja of the Huhava race (see App. No. II), this would hardly have occurred if the Pala Rájas had really belonged to a non-descript race, like the Bhuinháris.

I only throw this out as a suggestion. It is by no means a new one, Mr Prinsep already made it in *J A S B*, Vol IV, p 670. But much additional information in support of it has since come to light.

## NO. II.

In computing the chronology of the Pala dynasty too much reliance is still placed on the Ámgielhi inscription. But its mutilated state renders it practically useless unless where it is supported by other documentary evidence. Moreover, the description given by Mr Colebrooke of its genealogy, which has hitherto been always relied on, is very inaccurate. He

\* See the traditions, above quoted, of the Gahapwárs and Rathors in Elliot's *Races of the N W Provinces*, pp 121-124, and Sherring's *Hindu Tribes and Castes*, Vol. I, pp 140, 141, 175-177.

† See Gen Cunningham's *Arch Survey Rep*, Vol XV, p 147, *Calcutta Review*, Vol LIX, p 68. For an account of the Bhuinháris see Elliot's *Races of the N W Provinces*, Vol I, p 21.



state, (As Res, Vol IX, p 435) "The first mentioned is Lokapála, and after him Dharmapála. The next name has not been deciphered but the following one is Jayapála, succeeded by Devapála. Two or three subsequent names are yet undeciphered one seems to be Náráyana, perhaps Náráyana-pála they are followed by Rájapála,—Páladeva and Vighrapála Deva, and subsequently Mahípála Deva, Nayapála and again Vighrapála Deva "

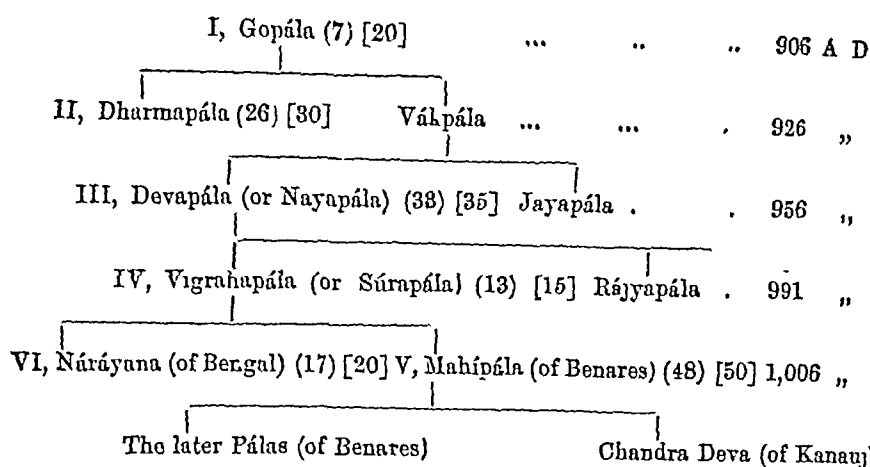
The A'ngáchhí plate is in the Society's collection, where I have subjected it to a careful re-examination, with the following result The first name is not Lokapála (which is mis-read for Lokanátha), but Gopála Deva (first word of the 5th line), then comes Dharmapála Nripa (middle of the 6th line) The next undeciphered name is Vákpála (near the beginning of the 7th line), called the Anuja or 'younger brother' of Dharmapála The following name is Jayapála, succeeded by Devapála, his Púrvaja 'or elder brother' (both in the middle of the 8th line) The two subsequent, undeciphered names are Vighrapála (1st word of the 9th line), and Náráyana Prabhu (middle of the 10th line), there is no third undeciphered name So far (that is, up to the 11th line) the record is nearly a duplicate of the Bhagalpur grant (J A S B, Vol XLVII, pp 284, 404), with the exception of three laudatory verses which are omitted in the A'ngáchhí grant Then follows the name Rájya-pála (last word of the 11th line), not Rájapála, as Mr Colebrooke read it, and immediately afterwards (near the beginning of the 12th line) Lokapála, apparently qualifying Rájya-pála Next comes (1st word of the 13th line) an altogether illegible name (not Pála Deva), who is described as the son (*prasúta*) of a lucky queen (*bhágya-devyákh*) of (as it would seem) Rájya-pála \* Then follows again Vighrapála Deva (last word of the 14th line), then Mahípála Deva (middle of the 16th line), then Nayapála Naiapati (middle of the 17th line), then again Vighrapála Deva Nripati (end of the 18th line) So far extends Mr Colebrooke's reading, and up to this place, that is from the 11th to the 20th line, the text of the A'ngáchhí grant is new From the 21st line up to the end, the A'ngáchhí grant again almost verbally agrees with the Bhagalpur grant, excepting only the names of the

---

\* The eleventh line closes with *Srímā(n)*, which is the usual commencement of a name. Now the verse, of which *Srímān* are the two initial syllables, is a 'Sragdhará' of 21 syllables, divided into three parts of 7 syllables each The quantities of the first part, of 7 syllables, are — — — — —, of which the first two lengths are taken up by *Srímān* Into the remaining quantities — — — — — the name must be fitted, but *Vighrapālo* will not do. Colebrooke read *pāladevo*, which, supposing it to be completed into *vākpāladevo* or the like, would do But there are no traces of *deva* visible, if anything, the traces indicate *pālo* to have been the last two syllables of the title, so that the quantities — — — would remain for the real name

donor, the donation (lines 24-26) and the donee (lines 36-40) The name of the donor is Vīgrahapāla Deva (middle of the 24th line), the successor (*pādānudhyāta*) of Nayapāla Deva (end of the 23rd line) He is again named, at the end of the grant, as Vīgrahapāla Kṣhītipati-tīlaka (middle of the 48th line) There is nothing to bear out Mr Colebrooke's remark, that "in the making of the grant Nayapāla likewise appears to have had some share "

Imperfectly as this grant can be read, it affords no ground for extending the Pāla genealogy beyond Vīgrahapāla (so-called 'the first') The grant to a very large extent verbally agrees with the Bhagalpur grant of Nārāyanapāla, its letters seem to be, if anything, of a rather older type, and there can be little doubt but that it is a grant of Nārāyana's father, Vīgrahapāla The opening lines of it are identical with those of the Bhagalpur grant, down to Vīgrahapāla, but while the latter grant goes on to describe Nārāyanapāla as being on the throne and making a gift of land the A'mgāchhī grant mentions Nārāyanapāla (or rather Nārāyana Piabhu) merely as a son of Vīgrahapāla, and the latter as making the gift of land This points to the line of ruling kings ending, at the time of the A'mgāchhī grant, with Vīgrahapāla It is true, after the first mention of Vīgrahapāla, there follow several names, viz, Rājyapāla (Mahīpāla?), Vīgrahapāla, Mahīpāla, Nayapāla, Vīgrahapāla, the last of these being the donor As the record is not yet fully read, it is, of course, impossible to determine with absolute certainty the significance of this series of names But the very order of repetition in which they follow, suggests that some of them are not new names It is not an unprecedented feature in such land-grants, that, after giving the genealogical line, the writer once more recurs to some of the names already mentioned, for the purpose of giving further particulars, an instance in point is the grant of Govinda Chandia, published in the Proceedings for 1876, p 131 Having brought the royal line down to Vīgrahapāla, the grantor, the record, before declaring the grant, apparently proceeds to add some particulars regarding the relation of Vīgrahapāla to Rājyapāla, and Mahīpāla That Rājyapāla did not come after Vīgrahapāla and Nārāyanapāla is proved by the Mungir grant, published in the Asiatic Researches, Vol I, p 133, which states that he was the son and heir-apparent (*yuvarāja*) of Devapāla He was, therefore, a brother of Vīgrahapāla Mahīpāla's relation to him and to Vīgrahapāla is not intelligible from the imperfectly legible record, but he is clearly in some way cotemporary with Vīgrahapāla As to Nayapāla, he is evidently the same as Devapāla, for in the genealogy Vīgrahapāla's predecessor is called Devapāla, but afterwards in the statement of the grant he is called Nayapāla



The date of Mahípála is known from the Benares inscription to be A D 1026. His contemporary Náráyanapála reigned at least seventeen years (Arch Rep, Vol XI, p 181). Accordingly their accession may be dated about 1006. The highest known regnal number of Vigraha is 13, he may have succeeded in A D 991. The highest known regnal number of Devapála is 33, he may have succeeded in A D 956. The highest known regnal number of Dharmapála is 26 (Proceedings for 1880, p 80), his date of accession will be A D 926. The highest known number of Gopála is 7, but all tradition agrees in giving him a very long reign of 45 or 55 years (Arch Rep, Vol XV, p 150), a limit of 20 years, therefore, will be safe, and to him A D 906 may be given. Altogether this gives 120 years to five generations, which is certainly not too much. But there is a curious piece of evidence, which tends to confirm the date thus assigned to Devapála, viz, A D 956-91. In the 'huge' Gwalior inscription noticed by Mr FitzEdward Hall (J A S B, Vol XXXI, pp. 6-8), a king Devapála is mentioned, with the date Samvat 1025, corresponding to A D 968\*. This exactly agrees with the date assigned to the Bengal Devapála, and as he is recorded to have made wide conquests towards the West, his mention in the Gwalior inscription would be accounted for. His warlike expeditions towards the West would bring him into contact with the Haihaya rulers of Chedi, and thus explain the statement in the Bhagalpur grant of the alliance of his son, Vigrahapála, with a Haihaya princess. Moreover, they would also explain the fact of the coins of Vigraha imitating the Sassanian type (see his coins in Arch Rep, Vol XI, pp 176, 177). As to Mahípála, he is reported in Táránáth's History to have reigned 52 years—a statement which is borne out by two inscriptions found by Mr J E.

\* Mr Hall gives also the date 1005, but it must be a misprint, for his equivaluations A D. 968 or A D 1103 (on p 8) only agree with the other date 1025, given in the bottom line of p 7.

Lanke at Imadpur (in the Muzaffarpur district) and dated in the 48th year of his reign \* Accordingly Mahipála's reign may be put down as having extended from A D 1006 to 1058 †

The history of the Pála empire about the turning of the 10th and 11th centuries, I imagine to have been thus The empire included Bengal, Bihár and Audh (Gaur, Paṭṇa and Benares), and the Pála rulers were Buddhists Towards the end of the 10th century a great disruption took place Bengal under Náráyanapála became Brahmanic, while Bihár and Audh under Mahipála remained Buddhist ‡ In the beginning of the 11th century another disruption took place,—Bihár under Mahipála's successors remained Buddhist, while Audh under Chandra Deva, a son of Mahipála, who made Kanauj his capital, became Brahmanic Bihár remained Buddhist till the Muhammadan conquest destroyed the remnant of the ancient Pála kingdom Náráyana was probably assisted in the separation which he effected, by the Bengal Governors sprung from the Sena family, who were in charge of the province of Paundra Vardhana The Sena family was intensely Brahmanic, and two of the earliest members of it, Samanta and Hemanta, synchronise with Náráyana's date (A D 1006-1026) It was probably the successor of the latter, who was supplanted in the Bengal kingdom by Vijaya Sena (or Sukha Sena), the first Bengal king (though the fourth in descent) of the Sena family, whose date is about A D 1030 In the Baqirganj grant he is stated, in so many words, to have "rooted out those of the race of Bhupála" (verse 6, see J A S B, Vol VII, pp 43-47) § Bhupála is a

---

\* See Proceedings for 1876, p 98 The inscriptions, which are identical, are engraved below two groups of bronze figures, and the date runs as follows *श्रीमन्-महिपालदेवराजस समत् ४८ जेददिन सुकल्पच २*।

† This is also Gen Cunningham's conclusion in Arch. Survey Rep, Vol XV, p 153 (A D 1008—1060). In the Proceedings for 1876, p 107, Dr Burnell communicated an inscription of the Chola king Kulottunga, which gives Mahipála's date as A D 1093 As the date refers to the conquest of Bengal and Mahipála, perhaps it may be taken as the date of Mahipála's death in battle It is difficult, however, to make this date harmonise with the Śāranātha date of A D 1026 The difference is 77 years, a period much too long to have been the reign of one person, even if we assume the traditional allowance of 52 years to fall short of the truth. It is clear that there is something wrong about one or the other of the two dates But in any case, it is only a question of about 20 or 30 years, within which the above calculated dates of the Pála reigns may require adjustment

‡ As Mahipála's reign was much longer than Náráyana's, he may have temporarily regained possession of the whole of the ancestral empire, after Náráyana's death

§ Prinsep's Pandit translated "rooting out the families of the inimical royal lines" But *Gauri-Bhupala vamsīyan* means simply "the inimical descendants of



[7] mahimá Váikpīḥ-namanujah | jah S'riman nṛya-vikramaika-  
vasatī[r] bhrītuḥ sthītaḥ śāsane sūnyāḥ śatru-patākīnībhū akarod eka-  
tapatia diśih [||] <sup>4</sup>Tasmād u-

[8] pendri-charitair jagatīm punānah putro babhūva vijayī Jayapāla-  
nimī | dharmadvishī[m] śamrayitā vudhī Devapāle yah pū[r]vjo (?)  
bhuvanarījya-sukhān avasīhit || <sup>5</sup>S'rimā-

[9] n Vighrahapālas tat-śūnur Ajatāstrur iva jātah | śatru vanitā-  
prasādhaur vilopī-vimalā-sī-jaladhīrah || <sup>6</sup>Dikpālīḥ kshīti-pālanāya dadha-  
tām debe vibha-

[10] ktiḥ śivah S'rimantam jana . ta tanayam Narāyanam sa  
prabhum | vah kshānti-patibhū śromani-ruchāśhshīṅghī-pithopala[m]  
na vopittam rā[m]chakāra charitrah

[11] svair eva dhī[r]misanam || <sup>7</sup>Tapā jaladhī-mūla-gabhīra-gar-  
bhe devaīyau cha kula-bhūta-ratna(śva) kākshah | vikhyāta-kīrtir abha-  
vat tanayas cha tasya S'ri-Rajapala-

[12] (m) lokapālīḥ || <sup>8</sup>Tasya va kshīti(vya)n nidhur iva mahasā  
rīvakūtā pe puṇyasyottunga-maule dubhitarī tanayo Bhāgya-de-yā  
prīutah [ ] S'rimā-

[13] \*n (about one third of the line omitted) bhavya nnaikaratna  
tikhavitavargah śi vigrimsukayoh || <sup>9</sup>Jasaminarājyagunairatnamāse-  
vita

[14] (about one fourth omitted) prabhūśakti lakshmiḥ pūrvvīm śrīpat-  
nīm iva ślapatra || <sup>10</sup>Tasmād babhūva savitur vasukoṭīvardhī | kalena  
chandra-(va)-Vighrahapāladeva[h] ||

[15] <sup>11</sup> penavimaleṇa kalā(tpadeṇa) | (ā)vābītena panito bhu-  
vanasya tāpīḥ || <sup>12</sup>Bhava-sakalī-vīlakshah sangare vā pradarpād anadhikri-  
ta-vilagnam rājyam āsadya pitryam [ ]

[16] nrasadmābhūd . . . . . ramipālāḥ S'ri-Mahīpāla-de-  
vāḥ || <sup>13</sup>Tyajan toshasāngī[m] śrī(śi) kṛitapādah kshīti-bhūtāvaranne  
sarvasāḥ prasabha-

[17] riva rāḥ [ ] bhava nnaḥ smigdha prakṛitir anurāgo .  
vasatī sma vā dhanyah prakhyairajani Nayapālo narapatīḥ || <sup>14</sup>Pitah san-  
ganale (vanah) smara-ripoh pūjā-

[18] . . . . . vīśrāme . . . . . dhikāra-bhavanah ka kṛite vidvīśhām |  
mantavyam drayam āśrayah śivapasa pengaga ndavan ( ) S'rimad-  
Vighrahapāla-deva-nripatīḥ

[19] (about three fourths omitted) kṛityasāndraikaru(prājahu)tāgrī-  
karair-

[20] (about one half omitted) sa khalu Bhāgīrathī-patha-pravartta-  
māna-mānāvīdha-nau vaṭaka-sampadita-setubandha-vibhita-

[21] sula-śikhara śreni-vibhramāt( ) nirati-śaya-ghana-ghana-ghana  
ghattā-śyāmāyamāna-vāsara-lakshmi-samarabdhā-sannata-jaladā-samaya-  
sandehat | udāhānāneka-

[22] narapati-prabhriti-kritāprameya-haya-vāhinī kharakhurotklīti-  
dhūli-dhusarita-digantarālāt | Parameśvara-sevā-samāyātāśeshā-Jambudvī-  
pa-bhūpālānanta-

[23] pādāt bharanamadavaneh (S'ri-Mudgagiri)-samāvāsita-samaya  
jaya-skandhāvāśāt | parama-sogato Mahāra[ja]dhirāja-S'ri-Nayapala-  
deva-pādānudhyātah parama-

[24] śvarah (paramabhattārako Mahārā)jādhirājah S'rimin Vignā-  
pāla-devah kuśalī || S'ri Pundavarddhana . kau Koṭivarsham vishadhanuh  
pati . . .

[25] ma (about one third omitted) (petana dhānā ha)lakahta || Kaka-  
nīn upādhikopamānadrayopeta .

[26] sa . . (ponnana) dronā-drava-sameta || shaṭ(k)ālya-pramāna-  
(ṭalu-ma)heśvara-sameta Vishamapurāmśe samupagatāśe-

[27] sha-rā(jā-purushān | rājara)nāka | rājaputra | rājāmītya |  
mahāsāndhivigrahika | mahākshapaṭalika | mahāsāmantā | mahāsenā  
pati | mahāpratihāra |

[28] dauhsādbasadhanika | mahādandanāyaka | mahākumāramītya |  
rājasthanoparika | dāsāparādhika | chauroddharanika | dāndika |  
dandapāsika | sau-

[29] Ikika | (gaulmika) | kshetrapa | prāntapāla | kshapāla |  
angaraksha | tadāyukta | vinayuktaka | hastyaśroṣṭranavalayāp-  
taka | kīśora | vadavā [ ] gomahishyajā-

[30] vi(kālyaksha | drutapesha)nika | gamūgamika | abhitrara-  
māna | vishayapā | gramapati | tarika | goda | malva | bhū-  
hūva | kulika | kallāṭa | līṭa | chāta |

[31] (bhaṭa | sevakādīn | anyān-s-chā)kīrtitān | rājapadopāyika-  
na[h] | prativasino brāhmanottarān | mahattamottama | ka-  
roga-maidāndha-chandāla-paryantān |

[32] (yathārham mānaya)ti | bodhayati | samādhivācha | vi-  
tam astu bhavatā[im] | yathoparikkhito 'rdhagramah | sa-  
prati-gochara-paryantah | satalah | so(ddah) |

[33] (sāmramadhūkah) | sṛjāla(sthalah) | sūgatto-harah | sū-  
pachārah | sachauroddharanah | paribhita-sarvapīdih | achāta-  
praveśah | akūchit-pragrāsah | samasti-bha-

[34] ga-bhoga-kara-biranyādi-pratyāya(eel)sameti | bhū-  
chhidranāyānā-

[35] chandrárka kshutí-samak ílam (*scal*) mât ípitror itmanaś (cha  
punya)-

[36] vāśo 'bhuviddhaye bhagavantam vpi (*scal*) ddha-bhaṭṭ írakam  
uddisva (śāśnikrī-)

[37] tva sagotrīva | Sandilva(*scal*)(māśiva | daiva ) ra

[38] harīva brahmach írme | Śāśmave(*scal*)dme | Kauthumí śikhā-  
dhy ayi-

[39] ne | Mimamsā-nv akarana (*śic*)-tarkhavyāśide | krodakṛti-  
mānta-mat-syaśa (vinirgratīva | tragramāśtavyaśa) | Vedānta-  
vikṛita (hmuana)-devaputrīva | maho-

[40] pūdhīya rkkā-deva-putrīva | (Kbhobhūta)-deva-śarmmane |  
(ś)anagrāha-vīdhī angīva ('smat) śāśnikṛitya pradatto 'smabhih |  
ato bhavādbhih śarīr ev inumantā-

[41] āyam bhavibhur api bhūpitibhih | bhume[r] dīna-phala-gauravat |  
apraharaṇa cha māhātāraka-pitra-bhīyāt | dīnam idam anumodya-  
numodyanupalanīyama patvasi-

[42] khetrakarāh || yñī śrayana-vidhevaibhūva yathakālam samu-  
dita-bhūga-bhota-kara hīrany idi-praty yoprayāh karyā iti || śmat | 2 |  
chaitradine 9 śarīva-

[43] thītra dharmīnus śimāh ślok th || 1bhūbhī[r] vasudhā datt ī rījā-  
bhih Śagarādbhih | āśyā āśyā yadī bhūmīś tasyā tasyā tādā phala[m] |  
2bhūmī[m] yāh pratigṛhīti yāś cha bhūmī[m] pra-

[44] yachchhātī | ubhau trū punyākarammānau nīyatām svargagam-  
nau | 3gam ekam śvarṇnam ekañ cha bhūmer apy ekam angulam | hīran  
nārakam āyati yav id abhut āsāmplavap || 4śrīśṭīva-ha-

[45] sāhasram svarge modatī bhūmīdah | akṣhepta chānumantā cha  
tāneva nārake vaset || 5vadattī[m] paridattī[m] va yo hareṭa vasundha-  
ram | śa vīsthayam kṛmī[r] bhūtvā pi-

[46] tṛibhih saha pacyate || 6śarvān etān bhavīnāh pīrthivendra[n]  
bhūyo bhūyāh prī[r]thīyaty esha rāmāh | samānyo 'y[an dh]armasetur  
nripanā[m] kāle kale pālānīyah kramenā || 7i-

[47] tī kamāla-dalambu-vīndu-lolā[m] śrīyam anuchintya manushya-  
jīvitāñ cha | sakalam idam udahṛitāñ cha buddhvā na hī puruṣāh  
parakīrtāyo vilopyāh || 8yau .

[48] vī-kṣhama . . . nīdhī brahma . dhanādbhanye . .  
.. || Śrī-Vīgrahapalāh kṣhūtīpatī-tilako . . . | Śrī-pra-

[49] hāsa-rā(ja)māka (nni)nam iha śāsane bhūtam || Posalīgrāma-  
nīryāta-Mahādhara-sūnunā idam sasanam utkīrnnam Śāsīdeva . ||



## Notes

I have carefully re-examined the original plate of the Bhagalpur grant, which is in the Society's collection, for the purpose of the following notes.

*Verse 1.* The latter half of this verse in the Bhagalpur grant agrees with the A'mgáchhí grant, and reads as I have given it. The meaning is "who having overcome the over-powering strength of desire has (now) obtained everlasting peace, may he, Gopáladeva, be prosperous, being another (i.e., like) Daśabala (Buddha), the Lord of the world."

*Verse 2* Both grants read distinctly *•निकेतनं समकरो वो•*, not *वंशम् समकरोद्* as given in the Bhagalpur transcript, the meaning is "well able to sustain the weight of the earth, making it (the earth) to be like the native-place of Lakshmí, he became the only asylum of the princes who approached him (for protection) as if they were afraid that their wings might be clipt"—I may note here, that in the A'mgáchhí plate, the anuswáras and superscribed repbas are often wanting, whether from the engraver's carelessness or perhaps from the ravages of time, it is impossible to say. On the Bhagalpur plate they are always present. The repba, when it does appear on the A'mgáchhí plate, is often a minute stroke attached to the upper part of the left side of the letter.

*Verse 3* This verse is, in the Bhagalpur grant, preceded by another, which is omitted in the A'mgáchhí grant.

*Verse 4* The A'mgáchhí grant reads distinctly *पूर्वजो* (nom. sing.) If this should be correct, it would reverse the mutual relation of Jayapála and Devapála, making the former the elder brother of the latter. The context, however, certainly seems to confirm the reading of the Bhagalpur grant, which has equally distinctly *पूर्वजे*—The A'mgáchhí plate has *अवेद्यौत्*, while the Bhagalpur plate has *अनैद्यौत्*, both equally distinctly. Both readings convey the same sense.

*Verse 5* Another verse of the Bhagalpur grant is omitted here.

*Verse 6* Here, again, a verse of the Bhagalpur grant is omitted—The Bhagalpur grant has *द्वियः*, not *द्विय* as given in the transcript—The latter part of the first half of this verse is different in the Bhagalpur grant, which reads *S'ri-Náráyanapáladevaṃ asrijat tasyám sa punyottaram*

*Verse 7* Here commences the portion which is peculiar to the A'mgáchhí grant.

*Line 20* In the middle of this line, with *sa khalu*, the identical portion of the two grants recommences.—The Bhagalpur plate has *váta* for *vátaka*.

*Line 23* The name of the capital should be S'ri-Mudgagiri. Though the number of the letters on the plate agrees with that name, their traces,

which are only very faintly visible, hardly seem to do so — The letters on the plate are only *Mahārādhirāja*, the syllable *ja* being omitted by mistake

*Line 24* From this line down to the end of line 26, the version of the Āṃgāchhī grant is new. It mentions the donor, Viṣṇupāla, the province Pundarvārdhana, and apparently a town Koṭivarsha.

*Line 26* At the end of this line the two grants again coincide. There is a mention here of a place *Tishamapura*.

*Line 28* The office of *mahākartaḥkritika* is omitted in the Āṃgāchhī grant — To the title of *dharmasādhanaika* the Bhagalpur grant prefixes *mahā* दो.सा० in the transcript of the latter grant is a misprint for दो.सा० as the original plate has it — The Bhagalpur grant has *rājasthānīyoparika* for *rājasthanoparika*, also *dāsāparadhika*, *dandapāsika* and *saulika*, with palatal ञ, while the Āṃgāchhī plate spells with the dental च

*Line 29* *Prāntapala* is clearly an error for *prāntapāla* — The Bhagalpur plate has *tadāyuktaka* for *tadayukta*, it also has *khandaśa* instead of *angaraśa*

*Line 30* The Bhagalpur plate has *abhitvamāna* (not *abhitvamāna*, as in the transcript), clearly an error for *abhitvaramāna*. It has also *viśayapati* for *viśayapā*, also *hūna*, not *hrana*, as in the transcript

*Line 31* The Bhagalpur plate has *rājapadopajivinaḥ*, and it omits the imperfectly legible word *ka ma* or *ke ma*.

*Line 32* The Bhagalpur grant has *matam* inste. <sup>Mu</sup> *viditam* — After *bhavatām* it inserts two and a half lines containing particulars about Nārāyaṇapāla, which are omitted in the Āṃgāchhī grant. <sup>W</sup> *budda*.

*Line 33* After *sagarttośaraḥ*, the Bhagalpur grant has a *soparīkaraḥ* — *Pragrāśkaḥ* is the correct reading in both grants, not *rayāśkaḥ*, as given in the Bhagalpur transcript

*Line 35* The Bhagalpur grant inserts *yāvat* after *samāśālam*

*Line 36* From the middle of this line to the middle of the 40th line the Āṃgāchhī text is new

*Line 40* The name of the donee is *khobhūta ?-deva* — The Bhagalpur grant omits *asmābhik*, and has *tato* for *ato*

*Line 41* Both grants have *bhūmer*, not *bhramair*, as the Bhagalpur transcript gives — The Bhagalpur plate has only *apraharane* — This line in the Āṃgāchhī plate is very carelessly written, *anumodya* is twice repeated, and the last words should evidently be *anupālanīyam prativāsibhiḥ*



# CLASSIFIED INDEX

TO THE

## SCIENTIFIC PAPERS

IN THE SOCIETY'S PUBLICATIONS

FROM 1788 TO 1883.

### I. .

### ANTIQUITIES.

[Abbreviations A = Ancient monuments C = Caves Sc = Sculptures I = Inscriptions Cp = Copperplates V = Votive objects P = Pottery R = Prehistoric Remains]

As Res	Cp		
Vol I (1788)	T	A Royal Grant of Land on a Copper plate, dated 23 B C , discovered at Mungir Translated by Charles Wilkins (With 2 Plates) . . . . .	123
		An Inscription c      'lar near Buddal Translated by Charles Wilkins (With a Plate) . . . . .	131
		Remarks on the above two Inscriptions by Sir William Jones . . . . .	142
	Sc & A	Some account of the Sculptures and Ruins at Mahavalipuram, a few miles north of Sadras and known as the seven Pagodas William Chambers . . . . .	145
	C & I	On a Cave with an Inscription near Gayá. John Herbert Harington. Translated by Charles Wilkins (With a Plate) . . . . .	276
	I	Translation of a Sanskrit Inscription, on a stone at Buddha Gayá Copied by Mr. Wilmot, translated by Charles Wilkins ..	284

As Res	Cp	An Indian Grant of Land in 1018 A D., found at Tanna, in Salset. Translated by Rámalochan Pandit. Communicated by General Carnac. (With a Plate) . . . . .	577
Vol I (1788)	I	Inscriptions on the Staff of Fruz Shah Transl. by Rádhacanta Sarma. (With 2 Plates) . . . . .	579
II (1790)	I	Two Inscriptions from the Vindhya Mountains. Transl. by Charles Wilkins . . . . .	167
	I	Translation of an Inscription in the Magahi language engraved on a silver plate, found in a cave near Islamabad. Communicated by John Shore . . . . .	381
	A	Memorandum concerning an Old Building in the Hindjipore District, near the Gauduck River. Reuben Burrow . . . . .	177
(III) (1792)	Cp	A Royal Grant of Land in Carnata. Transl. by Sir William Jones, communicated by Alexander Macleod. (With a Plate). . . . .	1
IV (1795)	A	A description of the Cuttab Mimar. Ensign James T. Blunt. (With 2 Plates) . . . . .	311
	A	Extract from a Diary of a Journey over the Great Desert from Aleppo to Busora in April 1782. Sir William Duncan . . . . .	191
	C	Some account of the Cave in the Island of Elephanta. J. Goldingham. (With 3 Plates) . . . . .	100
	A	An account of the present state of Dacca. Lieutenant William Franklin . . . . .	119
V (1798)	Sc, I	Some account of the Sculptures at Mahabalipuram, usually called the Seven Pagodas. J. Goldingham. (With copies of illustrations) . . . . .	60
	A	On the city of Pegu and the Kingdom of Siam. Also Præf. Capt. A. M. . . . .	111

As Res	V	An account of the discovery of two Urns in the vicinity of Benares Jonathan Duncan (With a Plate) . . . . .	131
Vol V (1798)	I	Account of some ancient Inscriptions at Ellora Sir Charles Ware Mallet Taken by Mr Wiles transl by Lieut F Wilford (With a Plate) . . . . .	135
	A	Account of the Pagoda at Perwattam Captain Colin Mackenzie Communicated by Major Kirkpatrick . . . . .	303
VI (1799)	C & Sc	Description of the Caves or Excavations near Ellora C W Mallet (With 6 Plates) .	382
	A & Sc	Remarks on some antiquities on the West and South coasts of Ceylon Captain Colin Mackenzie (With 2 Plates) . . . .	425
VII (1801)	I	Translation of the Inscriptions on the Pillar at Delhi called the Lat of Firuz Shah Henry Colebrooke With introductory remarks by Mr Harington (With 13 Plates of Capt James Hurre's drawings,) .	176
VIII (1805)	A	Extract from a Journal during the late campaign in Egypt Captain C B Burr	35
IX (1807)	I	On Ancient Monuments, containing Sanskrit Inscriptions H T Colebrooke (With 2 Plates) . . . . .	398
XII (1816)	I	Translation of a Sanskrit Inscription on a Stone found in Bundelkhand Lieutenant W Price (With Text) . . . . .	357
XIII (1820)	A	The Ruins of Prambanan in Java John Crawford . . . . .	337

As Res.	A.	An account of Bijapur in 1811 Captain Sydenham Communicated by Col C Mackenzie .....	433
Vol XIII.	"		
XIV (1822.)	A & I	An account of the Inscriptions on the Cootub Minar, and on the ruins in its vicinity Walter Ewer. (With a Plate) .....	480
XV (1825)	I	Sanskrit Inscriptions Captain E Fell. With observations by H H Wilson ....	436
	A. & I	Account of ancient Hindu Remains in Chattisghar, R Jenkins With translations and observations by H H Wilson. (With 2 Plates) ....	499
XVI (1828)	I	Translation of an Inscription on the great bell of Rangoon, with notes and illustrations Rev G H. Hough. (With Text and a Plate) .....	270
	I	Sanskrit Inscriptions at Abú. Horace Hayman Wilson .....	284
XX (1836-1839)	I	Translation of various inscriptions found among the Ruins of Vijayanagar E C. Ravenshaw With preliminary observations by H. H. Wilson .....	1
	I	Translation of an Inscription in the Burmese language, discovered at Buddha Gaya in 1833. Lieutenant-Colonel H Burney (With 2 Plates) . . . . .	161
Journal Vol II (1833)	A	Account of the Jain Temples on mount Abú in Gujerat. Lieutenant Burnes .....	161
	A	On the "Topes" and Grecian Remains in the Panjáb Lieutenant A. Burnes ....	308
	Sc.	On the colossal Idols of Bamián Lieutenant Alexander Burnes (With a Plate) .....	561
	C	Cave of Secanderiah near Tabriz.....	658

Journal	A	Discovery of an ancient town near Behut, in the Doab Captain P T Cautley ...	43
Vol III (1834)	A	A description with drawings of the ancient Stone Pillar at Allahabad, called Bhim Sen's Gadā or Club, with accompanying copies of four inscriptions engraven in different characters upon its surface Lieutenant T S Burt (With a Plate) ....	105
	I	Note on Inscription No 1, of the Allahabad Column James Prinsep (With 2 Plates)	114
	I	Remarks upon the second Inscription of the Allahabad pillar Captain A Troyer (With a Plate) .. .. .	118
	I	Translation of an Inscription in the Pālī and Burma languages on a stone slab from Ramavati (Ramree Island) in Arracan, presented by H Walters Ratna Paula (With a Plate) . . . . .	209
	I	Translation of an Inscription in the Pālī character and Burmese language, on a stone slab at Buddha Gaya, in Bihar (With a Plate) . . . . .	214
	A	Further account of the Remains of an ancient town discovered at Behut near Saharanpur Captain P T Cautley (With a Plate) . . . . .	221
	I	Restoration of the Inscription, No 2, on the Allahabad column Rev Dr W H Mill (With 2 Plates) . . . . .	257
	A	Memoir on the Topes and Antiquities of Afghanistan Dr J G Gerard .....	321
	A	Extracts from Mr Masson's letter to Dr J G Gerard on the Excavations of Topes, dated Tattung 22 March 1834 . . .	329
		Note on the locality of the Rajagriha, of the Town of that name, in Behar. By T R (Lieut T Renny?) . . . . .	366
	I	Notice of some ancient inscriptions in the characters of the Allahabad Column B H Hodgson (With a Plate) . . .	481
	I	Note on the Mathiah Lath Inscription, James Prinsep (With a Plate). ....	483



As Res	A.	An account of Bijapur in 1811. Captain Sydenham Communicated by Col C Mackenzie .....	433
Vol XIII.			
XIV (1822)	A & I	An account of the Inscriptions on the Cootub Minar, and on the ruins in its vicinity Walter Ewer. (With a Plate) .....	180
XV (1825)	I	Sanskrit Inscriptions Captain E Fell With observations by H. H Wilson ....	436
	A & I	Account of ancient Hindu Remains in Chittisghar, R Jenkins With translations and observations by H. H Wilson (With 2 Plates) .....	199
XVI (1828)	I	Translation of an Inscription on the great bell of Rangoon, with notes and illustrations Rev G. H Hough (With Text and a Plate) .....	270
	I	Sanskrit Inscriptions at Abú Horace Hayman Wilson .....	284
XX (1836-1839)	I	Translation of various inscriptions found among the Ruins of Vijayanagar H C Ravenshaw With preliminary observations by H H Wilson .....	I
	I	Translation of an Inscription in the Burmese language, discovered at Buddha Gaya in 1831. Lieutenant-Colonel H Burney (With 2 Plates) .....	161
Journal Vol II (1833)	A	Account of the Jain Temples on mount Abu in Gujerat Lieutenant Burney .....	161
	A	On the "Tapes" and German Remains in the Punjab Lieutenant A Burney ....	100
	Sc	On the colossal Idols of Bamian Lieutenant Alexander Burney (With a Plate) .....	561
	C	Cave of Sanderiah near Tabriz .....	600

Journal			
Vol III. (1834)	A.	Discovery of an ancient town near Behut, in the Doab Captain P T Cautley ....	43
	A	A description with drawings of the ancient Stone Pillar at Allahabad, called Bhim Sen's Gada or Club, with accompanying copies of four inscriptions engraven in different characters upon its surface Lieutenant T S Burt (With a Plate) .....	105
	I	Note on Inscription No 1, of the Allahabad Column James Prinsep (With 2 Plates) .....	111
	I	Remarks upon the second Inscription of the Allahabad pillar Captain A Troyer (With a Plate) .....	118
	I	Translation of an Inscription in the Pāli and Burma languages on a stone slab from Ramāvati (Ramicee Island) in Arracan, presented by H Walters Ratna Paula (With a Plate) .....	209
	I	Translation of an Inscription in the Pāli character and Burmese language, on a stone slab at Buddha Gaya, in Bihar. (With a Plate) ....	214
	A	Further account of the Remains of an ancient town discovered at Behut near Saharanpur Captain P T Cautley. (With a Plate) .....	221
	I	Restoration of the Inscription, No 2, on the Allahabad column Rev Dr W H Mill (With 2 Plates) .....	257
	A	Memoir on the Topes and Antiquities of Afghanistan Dr J G Gerard .....	321
	A	Extracts from Mr Masson's letter to Dr J G Gerard on the Excavations of Topes, dated Tattung 22 March 1834..	329
		Note on the locality of the Rajagriha, of the Town of that name, in Behar By T. R (Lieut T Renny?) .....	366
	I.	Notice of some ancient inscriptions in the characters of the Allahabad Column B H Hodgson (With a Plate) .....	431
	I	Note on the Mathiab Lāth Inscription, James Prinsep (With a Plate).....	433



Journal			
Vol IV (1835)	I.	a Temple on the confines of the valley of Nepal B H Hodgson (With a Plate) .....	196
	I	Further note on the Inscription from Sárnáth B H Hodgson .....	211
	A	Note on an Inscription found near the Kesariákh Mound, in Tirhut J. B Elliott (With a Plate) .....	286
	I	Notice of the Temple called Seo Baijnáth, discovered by Sergeant E Dean, on the Hill of Unchápahár, in the Shekawati Territory (With 4 Plates and a Map) ..	361
	Cp	Restitution and Translation of the Inscription found in the Ruins of the mountain Temple of Shekawati Rev. Dr W. H. Mill ..	367
	I	Account of the Inscriptions upon two sets of Copper Plates, found in the western part of Guzerát W H Wathen (With 3 Plates) .....	477
	A	Report on some Inscriptions found at Hammam, on the Southern coast of Arabia T G Hutton, and Lieut J Smith. (With 2 Plates) . . . . .	533
	A	Note regarding the Bhilsa monument. Dr Spilsbury.....	712
	I	Note on the Sárnáth Building Baron Hügel .....	712
	I	Note on the occurrence of the Bauddha formula James Prinsep . . . . .	713
V (1836)	Sc & I	Discovery of Buddhist images with Devanágari Inscriptions at Tagong, the ancient capital of the Burmese Empire Colonel H Burney (With a Plate) .....	157
	I	Note on an Inscription at Bamán C Masson (With a Plate) . . . . .	188
	I	Interpretation of the Tibetan Inscription on a Bhotian banner, taken in Assam, and presented to the Asiatic Society by Captain Bogle. Alexander Csoma de Kőrös. (With a Plate) .....	264

Journal			
Vol V (1836)	I.	Facsimiles of various ancient inscriptions James Prinsep (With 8 Plates), 795, 724, 657, 554, 482, 340	
	Cp	Translation of a Tām̐ba patra, found near Piplianagar in the Shujalpur Parganá L Wilkinson .....	377
	A	Extracts from a memoir on a map of Pesh- āwar and the countries between the Indus and the Hydaspes, the Peucalaotis and Taxila of ancient geography. A Court (With a Map) .....	468
	Sc	Note on the discovery of a relic of Gre- cian Sculpture in Upper India Lieut Col L R Stacy. (With a Plate) ...	567
	A.	Notes on the Antiquities of Bamian C Masson .....	707
	A.	Description of Uch-Sharif Munshi Mohun Lál .....	796
VI (1837.)	I	Restoration and Translation of the Inscrip- tion on the Bhitāri Lāt with critical and historical remarks Rev Dr W H Mill. (With a Plate) .....	1
	A	Suggestions on the sites of Sangala and the altars of Alexander C Masson.....	57
	A	Chinese account of India Translated from the Wan-heen-thung-kaon or "Deep re- searches into ancient monuments," by Matwanlin .....	61
	I.	Translation of an inscription on a stone in the Asiatic Society's Museum, marked No 2 Captain G T Marshall (With a Plate) .....	88
	I.	Facsimiles of ancient Inscriptions James Prinsep (With 15 Plates) ..	869, 663, 278, 218
	I A	Note on the Facsimiles of Inscriptions from Sanchi near Bhilsā, taken by Captain Ed Smith, and on the drawings of the Bud- dhist monument, presented by Captain W Murray. James Prinsep. (With 5 Plates)	451

Journal	Sc		
Vol VI (1837)			
	I	Notice of a Colossal Alto-relievo, known by the name of Mata Koonr situated near Kussa Tannah, in Pergunah Sidowah, in the Gorakhpur District D. Laston . . . . .	177
	I	Interpretation of the most ancient of the inscriptions on the pillar called the Lat of Firuz Shah, near Delhi and of the Allahabad, Radha and Mattia pillar or lat inscriptions which agree therewith James Prinsep . . . . .	566
	A	Account of the Ruins and Site of old Modwa in Raipur, and legend of Vikramaditya's son in Cutch Lieut W. Poole . . . . .	615
	I	Account of an inscription found by Mr H. S. Boulderson, in the neighbourhood of Bareilly James Prinsep (With a Plate) . . . . .	777
	I	Further elucidation of the Lat or Silethana bha inscriptions from various sources James Prinsep (With 2 Plates) . . . . .	791
	A	Observations upon the past and present condition of Oujain or Ujjayini Lieut Col Edward Conolly (With a Plate) . . . . .	813
	I	Note on the fac-similes of the various Inscriptions on the ancient column at Allahabad, retaken by Captain Fox and Smith James Prinsep (With 2 Plates) . . . . .	963
	I	Specimens of Buddhist Inscriptions, with symbols from the West of India Colonel W. H. Sykes . . . . .	1035
		Note on Colonel Sykes' Inscriptions James Prinsep (With a Plate) . . . . .	1012
	I	Further notes on the inscriptions on the column at Delhi, Allahabad, Benin, etc Hon'ble George Turnour . . . . .	1019
	V	Account and drawing of two Burmese bells now placed in a Hindu temple in Upper India Captain R. Wroughton (With 2 Plates) . . . . .	1064
	I	Note on Inscriptions at Udawagiri and Khindagiri in Cuttack, in the lith character James Prinsep. (With 2 Plates) . . . . .	1072

Journal			
Vol VII (1838)			
	I	Facsimiles of ancient Inscriptions (continued) James Prinsep (With 3 Plates)	1038, 966, 901, 33
	A.	Ruins and Pillar at Jajipur, from Lieutenant Markham Kitchie's Journal (With 2 Plates) .....	200, 53
	I.	Discovery of the name of Antiochus the Great, in two of the edicts of Asoka King of India James Prinsep.....	156
	I	On the edicts of Piyadasi or Asoka, the Buddhist monarch of India, preserved on the Girnar rock in the Gujarat peninsula, and on the Dhauhi rock in Cuttack, with the discovery of Ptolemy's name therein James Prinsep (With 3 Plates) ..	219
	I.	Restoration and Translation of the Inscription on the large Airacan Bell, now at Nadiobighat, Zillah Alligarh, described by Captain Wroughton James Prinsep (With a Plate) ..	287
	I.	Examination of the inscriptions from Girnar in Gujarat and Dhauhi in Cuttack (continued) James Prinsep (With 4 Plates)	334
	A	Account of an ancient temple at Hissar, and of the ship model at that place Captain Wm Brown (With a Plate) ..	429
	A	An account of the Jain Temple at Badrasir, and ruins of Badranagari in the province of Cutch Lieutenant W Postans (With a Plate) .....	431
	I.	Examination of the separate edicts of the Aswastama inscription at Dhauhi in Cuttack James Prinsep. (With 3 Plates) ..	434
	J.	Translation of Inscriptions in the Society's Museum (Continued) James Prinsep (With a Plate) .....	557
	I	More Dunams from the Sanchi Tope near Bhilsa, taken in impression, by Capt T S Burt Transl by James Prinsep (With a Plate) .....	562
	I.	Lithographs and translations of inscriptions taken in ectype by Captain T. S. Burt,	

Journal		
Vol VII (1838)	Sc   A  I  A  I	and of one from Ghosi, taken by Captain A Cunningham James Prinsep. (With 3 Plates) ..... 629 Sketch of the sculptured images, on the temples of Gíamesvara near Rátrapur, from Lieut Kittoe's Journal (With 2 Plates). ..... 660 Mr Kittoe's Journal of his tour in the province of Orissa (With 6 Plates). .. 679 Translation of an inscription on a Tamba- patra, found at Piphamagar in the Shujal- pur Purganá L Wilkinson .... 736 Sketch of the Temple to Durga at Baleswar, etc from Lieutenant Kittoe's Journal (With a Plate) ... 1060, 828 Notes of a Journey to Gírnár in Kattyawar, for the purpose of copying the ancient Inscriptions upon the rock near that place Lieut Postans With two notes on Som- náth, one by Mr Kittoe (With 5 Plates) 865
VIII (1839)	A  I  Cp  I	Objects of Research in Afghanistan Pro- fessor Lassen ..... 145 Notice of an Inscription on a Slab, discovered near Chatarpur, in Bundelkhand. Cap- tain T S Burt .. ..... 159 Account of Tambapatra plates dug up at Baroda in Gujarat, with facsimile and translation H T P (H T Prinsep) (With a Plate) ..... 292 Notice of Inscriptions in Bihar Mr Raven- shaw ..... 347 Proposed publication of Plates of Hindu Architectural Remains .... 384
IX Part I (1840)	I  I  I	Notice of an Inscription in Bihar Mr Ravenshaw (With 4 Plates)..... 65 Note on an Inscription from Oodeypur near Sagur H Torrens (With a Plate) ... 545 Inscription found near Bhabra Captain Burt With notes by H Torrens and Capt M Kittoe (With a Plate) .. ... 616



Journal	I	Paper on ancient Land-grants on Copper, discovered in Assam Major F Jenkins (With a Plate) . . . . .	766
Part II			
X	A & V	Opening of the Topes at the caves of Kanari, near Bombay, and the Relics found in them Dr James Bird (With a Plate)	94
Part I.	Cp	Note on a Copper land grant of Jaya Chandra H Torrens . . . . .	98
(1841)			
Part II	A	On the topes of Darunta and caves of Bahra- bad Lieut Pigou (With a Plate). . .	381
	V	A sketch of the second silver plate found at Badakshan. Lieut Alexander Cuning- ham (With a Plate) . . . . .	570
	I	Inscription taken from a Baolee at Bussunt- guruh, at the foot of the Southern range of Hills running parallel to mount Aboo Captain T. S Burt . . . . .	664
	I	Literal translation of the Vasuntguruh In- scription. Pandit Surodaha Prasadh . . .	819
	I	Observations on a second inscription taken in facsimile from the neighbourhood of mount Aboo Captain Burt . . . . .	821
XI	I.	On an ancient Magic Square, cut in a temple at Gwalior Captain Shortiede . . . . .	292
Part I	I.	Ancient Inscription found at Aden S B	
(1842)		Haines (With a Plate) . . . . .	958
Part II			
XII.	I	Documents relating to the gates of Somnath (With 4 Plates) . . . . .	73
Part I			
(1843)			
XIII	I	An inscription from a Tablet in a Buddhist monastery at Ningpo in China. Dr D J Macgowan. (With a Plate) . . . . .	113
Part I			
(1844)			
XIV	A	On the Buddhist emblems of Architecture Captain T. Latter (With 2 Plates) . . .	623
Part II			
(1845)			

Journal	Sc.		
Vol XVI Part I (1847)		Note on an image of Buddha found at Sherghatti, etc Captain Kittoe (With a Plate) . . . . .	78
	A.	On the Ruins of Anuradhapura, formerly the capital of Ceylon William Knighton (With 2 Plates) . . . . .	213
	A	Notes on the Vihāras and Chaityas of Bihar (With 2 Plates) . . . . .	272
		Queries on Archæology of India Rev James Long . . . . .	285
	Sc	Note on the sculptures of Buddha Gaya Captain M Kittoe . . . . .	334
	A	The rock Temples of Dambool, Ceylon William Knighton (With a Plate) . . . . .	340
		Instructions how to take correct facsimiles of Inscriptions Captain Kittoe . . . . .	366
		Hints on the easiest method of taking and preparing drawings for Lithograph Captain Kittoe . . . . .	368
	A	An account of the Temple of Tribeni near Hooghly D Money . . . . .	393
	C	Notes on the caves of Burabur Captain Kittoe (With 3 Plates) . . . . .	401
	A	Some account of the "Kalān Musjeed," commonly called the "Kilee Musjeed," within the new town of Delhi Lieutenant Henry Lewis (With 5 Plates) . . . . .	577
	I	Translation of an Inscription on a Gun at Moorsheadabad with Remarks Major St G D Showers . . . . .	589
		Translation of an Inscription in the Nāgarjuni Cave (With a Plate) . . . . .	594
	A	On the Temples and Ruins of Oomga Captain M Kittoe . . . . .	656
	Sc	On a Sculpture from the site of the Indo-Greek city of Bucephala Captain James Abbott (With 3 Plates) . . . . .	664
	A	Notes on the Antiquities of the Districts within the Bhopal Agency Captain J D Cunningham (With 2 Plates) . . . . .	739
	A	Some account of the Town and Palace of Firūzabad, near Delhi, with introductory re-	
Part II			

Journal		marks on the sites of other Towns Henry Cope ..... 971
Vol XVI Part II	A	Memorandum regarding the recently discovered ruins at Ranode in Scindiah's Dominions Henry Cope ..... 1079
	I.	Inscription at Oomga and notes on the same Captain Kittoe ..... 1220
XVII Part I (1848)	A.	On the antiquities of Sarguja and its neighbourhood Lieutenant-Colonel J. R. Ouseley (With a Plate) ..... 65
	I	Inscriptions from Vijaya Mandir, Udayapur, etc. Babu R Mitra..... 68
	V	Lingam at Bhojpur Captain J. D Cunningham..... 154
	I	Inscription at Singapore. Captain J D. Cunningham ..... 154
	A	Description of the Antiquities at Kalinjar. Lieut F Maisey (With 19 Plates).... 171
		Appendix to Ditto (With a Plate) .... 313
	I	Inscription from Penang Colonel J Low 232
	A.	Antiquities of Orissa Captain M Kittoe . 234
	A	On the Ruins at Putharee. Captain J. D Cunningham ..... 305
	A	Notes on ancient temples and other remains in the vicinity of Suddyah, Upper Assam Major S F Hannay Communicated by Mr Seton Karr (With 2 Plates)..... 459
	A	Description of the Tomb of an Ahom noble Sergeant C Clayton Communicated by Mr Seton Karr. (With a Plate) ..... 473
	I	Sanskrit inscription from Behar, with a translation by Dr Ballantyne and remarks by Captain M Kittoe ..... 492
		Note on the above by J W Laidlay .... 498
		Proposed Archæological Investigation Capt A Cunningham . . . . . 535
XVII Part II.	I	An account of several inscriptions found in the Province Wellesley on the Peninsula of Malacca Lieut-Col James Low (With a Plate) ..... 62

Journal.	I	Note on the Inscriptions from Singapur and Province Wellesley, forwarded by the Hon Col Butterworth J W Laidlay. (With a Plate) . . . . .	66
Vol XVII			
Part II		Relics of the Catholic Mission in Tibet B H Hodgson . . . . .	225
(1848)	A	An Essay on the Arian order of Architecture, as exhibited in the Temples of Kashmir. Captain A. Cunningham Communicated by H M Elliot (With 17 Plates) ...	241
XVIII	Sc	Remains of Greek sculpture in Patowar. Captain James Abbott (With 6 Plates)	131
Part I	I	On an Inscription from Keddah Lieut Col Low (With a Plate) . . . . .	247
(1849.)		Note on above. J W Laidlay . . . . .	247
Part II.	Sc	Description of a colossal Jain figure, nearly 80 feet high, cut in relief, discovered on a spur of the Satpura range in the district of Burwame, on the Nerbudda Dr. Impey . . . . .	918
XIX	I.	Note on an inscription on a brick, found in the Jounpur district by Captain M Kittoe. Transl by Dr James Ballantyne. . . . .	454
(1850)	I.	Note on an inscription from Oujein Babu Rajendralála Mitra . . . . .	475
XX	Sc	A short notice of an ancient colossal figure carved in granite on the Mandar Hill in the District of Bhágalpúr. Captain W S Sherwell (With a Plate) . . . . .	272
(1857.)	A	Notice of a Ruin in Singbhúm Rev. J. Long . . . . .	283
	A	Brief notice of the Sil Háko or stone bridge in Zallah Kámrúp Major S T Hannay Communicated through Major F. Jenkins (With a Plate) . . . . .	291

Journal	A	On the oriental character of certain Northern Antiquities Dr George Buist .. . . . . .	127
Vol XXI (1852)	A	Nooks and corners of Bengal No I, the Tomb of Meer Muddan Khan. Captain F P Layard . . . . .	148
	A.	On the site of Nikana and Boukephalon Major James Abbott . . . . .	214
	A	The Mausoleum of the Nawabs Ali Verdi Khan and Soorajood Dowlah at Koosk-bagh, near Moorshedabad Captain F P Layard (With 2 Plates) ... . . . .	504
	Sc.	Notice of two heads found in the Northern Districts of the Panjab, with drawings W Jackson (With 2 Plates) .. . . .	511
	Sc	Note on some sculptures found in the district of Peshawar. E C Bayley (With 11 Plates) .. . . . . .	606
XXII (1853)	Sc	Note on a sculpture in Alto-relievo sent by the Governor General to the Asiatic Society Welby Jackson (With a Plate)	193
	Sc	The ancient city of Konsonapuri, now called Rungamutty. Captain F P. Layard. (With a Plate) .. . . . . .	281
	A	Note on the ruins at Manikyála Major James Abbott .. . . . . .	570
	A	Notes on the ruins at Mahábalipuram on the Coromandel Coast C Gubbins (With 2 Plates) .. . . . . .	656
	I	Note on an ancient Inscription from Thanewar. Babu Rájendralála Mitra.....	673
XXIII (1854)	I	Note on two inscriptions at Khunniara in the Kangra district E C Bayley (With a Plate) .. . . . . .	57
		Gradus at Aornon Major J Abbott (With a Map and 2 Plates) .... . . . .	309
		Indo-Grecian sculptures from the North Western Frontier Major J. Abbott (With a Plate) .. . . . . .	394

Journal	A	Note on the present state of the excavations at Sarnáth E Thomas (With 2 Plates)	169
Vol XXIII (1854)			
XXIV (1855)	A	Notes on Assam Temple Ruins Captain E. Taitt Dalton (With 11 Plates) ...	1
	A	Memorandum on the deserted city of Dhoolmee in Maubhoom H Piddington ....	207
	I	Notes on ancient inscriptions from the Chusan Archipelago and the Hazara country Babu Rajendralala Mitra . . . . .	324
XXV (1856)	V	Original text and translation of a scroll of silver in the Burmese language, found in a Buddhist Pagoda at Prome Major A P Phayre . . . . .	173
	C	A visit to the Rock-cut temples of Khundgiri E D Samuells . . . . .	222
	A	Correspondence relating to the exploration of the ruins of Sarnáth . . . . .	395
XXVI (1857)	A	An account of the ancient Buddhist remains at Pagan on the Irawadi Captain Henry Yule .. . . .	1
XXVII (1858)	Cp	Of two edicts bestowing land, recorded on plates of copper Fitz-Edward Hall ..	217
	I	Public Inscriptions at Laboie Henry Cope	308
XXVIII (1859)	I	Decipherment of a Sanskrit inscription, dated in the fourteenth century, with a translation and notes Fitz-Edward Hall ....	1
XXIX (1860)	I	Two letters on Indian Inscriptions Fitz-Edward Hall ... . .	18
	A	Remarks upon an ancient Buddhist monastery at Pagan on the Iráwády Lieut-Col A Phayre. (With 4 Plates) . .	346

Journal	Cp	
Vol XXX (1861)	Cp	Of two land grants, issued by king Hastin, bearing date in the years 156 and 163 after the subversion of the Guptas. Dr Fitz-Edward Hall ..... 1
	I.	The inscriptions of Erikaina, now Eran, reddeciphered and retranslated by Dr. Fitz-Edward Hall ..... 14
	Cp	A donative Inscription of the tenth century, the Sanskrit original and its substance in English with remarks on the later kings of Dhára in Málana. Dr Fitz-Edward Hall ..... 195
	A.	A few notes on antiquities near Jabalpur. Lieut-Col H Yule (With a Plate) .. 211
	Cp	Translation of a Bactrian Inscription from Waidak in Afghanistan Babu Rájendralála Mitra (With a Plate) ..... 337
		Note on the above E. C. Bayley ..... 347
	I	Decipherment of an Inscription from Chedi, with a brief statement of the historical and other indications therefrom derived Dr Fitz-Edward Hall ..... 317
XXXI (1862)	A	Notes of a brief visit to some of the Indian Remains in Java Lieut-Col Henry Yule (With 9 Plates) ..... 16
	I & Cp	Three Sanskrit Inscriptions Copies of the original and prefatory observations. Dr Fitz-Edward Hall ..... 111
	V	On some Bactro-Buddhist relics from Rawal Pindi Babu Rájendralála Mitra (With a Plate) ..... 175 Remarks on the above E. C Bayley .. 184
XXXII (1863)	A	On the antiquities of the Peshawar district. Rev J Loewenthal. (With a Plate).... 1
	Cp	Remarks on the Bactro-Pali Inscription from Taxila Major General A. Cunningham.. 139 Note on the above. Babu Rájendralála Mitra ..... 151

Journal		Postscript to above Major-General A. Cunningham .....	172
Vol XXXII (1863)	I	Remarks on a stone inscription from the ruins of Pagán on the Iráwády river Lieut.-Col. A P Phayre (With a Plate)	267
	I	Two ancient Sanskrit Inscriptions from Central India, texts, translations, and comments Babu Rájendralala Mitra ...	273
	I	Letter on the Taxila inscription from Professor J Dawson .....	421
		Colonel Cunningham's Archaeological Survey Report for 1861-62, communicated by the Government of India .....	1
XXXIII (1864)	Cp	Note on the Bactro-Pali inscription from Taxila Major General A Cunningham .	35
	A	Extract from a Report on the Dependency of Bustar Captain C Glasford (With 4 Plates) . . . . .	44
	V	Memorandum upon some ancient Tiles obtained at Pagán in Burma Lieut Col A P Phayre ..	57
		On the system employed in outlining the figures of deities, and other religious drawings, as practised in Ladák, Zaskar, etc Captain H H Godwin Austen (With 5 Plates) . . . . .	151
	Sc	Memorandum on the life-sized statues lately exhumed inside the palace of Delhi C Campbell . . . . .	159
	A	On the ruins of Buddha Gaya Babu Rájendralála Mitra (With a Plate) ...	173
	I	Some Persian inscriptions found in Srinagar Kashmir Rev J Loewenthal . . . .	278
	Cp	On a land-giant of Mahendrapála Dera of Kanauj Babu Rájendralála Mitra (With a Plate) ..	321
	Sc	On the Buddhist Remains of Sultangunj Babu Rájendralála Mitra (With a Plate)	360
	A	On the Antiquities of Guzerat Captain H Mackenzie .....	402





Journal			
Vol XXXV (1866)	A	Description of the Chandrarekhágurh near Sashtání, Paiganá Nyegur, zillah Midnapur W J Herschel. •(With a Plate) .	181
	A	Notes on a Tour in Manbhoom, in 1864 65 Lieut-Col E T Dalton . . . . .	186
	Cp	Notes on a copper plate Inscription from Sambhalpur Babu Rájendralála Mitra .	195
	A	Notes on the history and topography of the ancient cities of Delhi C J Campbell (With 3 Plates) . . . . .	199
	A	Notes on pilgrimages in the country of Cashmere Major D F Newall . . . . .	219
	I	Notes on Gupta inscriptions from Aphsar and Behar Babu Rájendralála Mitra (With a Plate).....	268
XXXVI (1867)	A.	Notes on the Jumma Masjid of Etawah C Horne (With a Plate).....	74
	I	Translation of an Inscription copied in the Temple of Nakhon Vat, or the City of Monasteries, in Kambodia Dr A Bastian. ....	76
	A	Notes on Buddhist remains near Mynpoorie. C Horne. . . . .	105
	Sc	Notes on the Carvings on the Buddhist Railposts at Buddha Gaya C Horne (With 3 Plates) . . . . .	107
	A	The Pegu Pagoda Captain H A Browne The antiquities of Bagerhát Babu Gour-dass Bysack . . . . .	109 126
	A	Remarks on some ancient Hindu Ruins in the Garhwal Bhatur Lieutenant Ayrton Pullan.. . . .	154
	A	Notes on ancient remains in the Mainpuri District C Horne (With 5 Plates) ..	157
XXXVII (1868)	A	Description of a Hindu temple converted into a Mosque at Gaganesvar, zillah Midnapúr W Herschel .....	73

Journal	Cp	Text and translation of a Balandshahar Inscription Babu Pratapa Chandra Ghosha	
Vol XXXVIII. (1869)	A	• (With a Plate) . . . . .	21
		Some observations on the Temples of Razdan or Razdoing in the Lar Pargana, Cashmere (With 3 Plates) Lieut Col D. F. Newall . . . . .	177
XXXIX. (1870)	R	Note on a circle of stones in the District of Yusufzai. Colonel Sir A Phayre (With a Plate) . . . . .	58
	Cp	Memorandum on and a tentative reading of the Sue Vihār Inscription from near Bhāwalpūr E C Bayley. (With 2 Plates) . . . . .	65
	A	Notes on old Delhi J D Tremlett . . . . .	70
	A	Notes on archæological remains at Shāh ki Dheri and the site of Taxila J. G. Delmerick . . . . .	89
	I	Notes on Sanskrit Inscriptions from Mathurā Babu Rājendralāla Mitra (With 4 Plates) . . . . .	117
	Cp	Three sets of Copper Sasanams discovered in the Vizagapatam District Rev T Foulkes . . . . .	153
	A	Notes on the Antiquities of the Nālī, the Assia, the Mahavmayaka hills of Cuttack Babu Chandrasekhara Banerji . . . . .	158
	A	The Bonhara Temple, near Omerpore, Behar, and other antiquities of the place Babu Rashbihārī Bose . . . . .	232
	I	Facsimiles of autographs of Jahangir, Shah-jehan and Prince Dārā Shikoh, with notes on the literary character and the capture and death of Dārā Shikoh (With a Plate) . . . . .	271
	I	Notes on Arabic and Persian Inscriptions, in the Hūghli District H Blochmann (With 5 Plates) . . . . .	279

<p>Journal</p> <hr/> <p>Vol XL (1871)</p>	<p>I</p> <hr/> <p>A</p> <p>Cp</p> <p>C</p> <p>A</p> <p>I</p>	<p>Notes on three Inscriptions on stone found in Chutiá Nágpur Babu Rakhal Das Haldar ..... 108</p> <p>An account of the antiquities of Jajpur in Orisá Babu Chandrasekhara Banerji ... 151</p> <p>Notes on, and translation of, two copper plate Inscriptions from Bhámanghāti Babu Pratapa Chandra Ghosha (With 4 Plates) ... . . . . . 161</p> <p>The rockcut excavations at Harchoka Captain W L Simuells (With 2 Plates) . 177</p> <p>The ruins at Kopari, Balasor District J Beames (With 2 Plates) . . . . . 247</p> <p>Notes on several Arabic and Persian inscriptions H. Blochmann (With 4 Plates) 251</p>
<p>XLI (1872)</p>	<p>A</p> <p>I</p> <p>A</p>	<p>More Buddhist remains in Orisá J Beames . 7</p> <p>Notes on Arabic and Persian inscriptions, No II H Blochmann (With a Plate) 102</p> <p>The Buddhist remains of Bihar A M Broadley (With 9 Plates) ..... . 209</p> <p>The Tirthas of Vrindávana and Gokula F S Growse . . . . . 313</p>
<p>(XLII) (1873)</p>	<p>R</p> <p>A</p> <p>I</p> <p>Cp</p>	<p>Rude stone monuments in Chutiá Nágpur and other places Col E T Dalton (With 3 Plates) ... . . . . . 112</p> <p>Notes on the age of the Ruins chiefly situate at Benáies and Jounpur Charles Horne .. . . . . . 160</p> <p>Contributions to the Geography and History of Bengal, from inscriptions H Blochmann (With 3 Plates) .... . . . . 209</p> <p>Note on two copper plate inscriptions (Kanaui) Dr Rajendralála Mitra ..... 314</p>
<p>XLIII (1874)</p>	<p>A</p>	<p>On the ruins at Dimápúr on the Dunsiri river, Asam Major H Godwin-Austin (With 6 Plates) ..... . 1</p>

Journal	A	Notes on Sunárgáon, Eastern Bengal Dr James Wise (With a Plan and a Plate)	82
Vol. XLIII (1874)	A	Notes on the Pálam Báohí Inscription Dr Rájendralála Mitra (With a Plate)....	104
		Letter by Col E T Dalton on a large picture representing the conquest of Paláman in 1660 by Daud Khán, Aurangzib's General .....	240
	A	Note on the site of Fort Ekdálah, District Dinajpur E. V. Westmacott. (With a Map) .....	244
	A	The Temple of Jayságar, Upper Asám. J M Foster (With 4 Plates) .....	311
	Cp	Note on the Chittagong Copperplate dated Saka 1165 or A D 1243, presented by A L Clay Pránnáth Pandit (With a Plate) .....	318
	I.	Transcript of the Pála inscription of the Buddal pillar, Dinajpur, by Pandit Hara Chakravarti Communicated by E V Westmacott, transl by Babu Pratapa Chandra Ghosha .....	356
	Cp	Note on an inscription of the time of Skanda Gupta from Indor Khera Dr Rájendralála Mitra (With a Plate) .....	363
XLIV (1875)	Cp	A copper land grant of Lakshman Sen of Bengal, found near Torpondighi in the Dinajpur District E Vesey Westmacott (With 2 Plates) .....	1
	A.	The Altí Hills in Cuttack J Beames (With 4 Plates) .....	19
	A	Note on Mahásthán near Bagura, Eastern Bengal C J O'Donnell. ....	183
	A & Sc	On traces of Buddhism in Dinájpur and Bagura E Vesey Westmacott (With a Plate) .....	187
	Sc	Supposed Greek sculpture at Mathura F S Growse. (With 3 Plates.) .....	212

Journal	Sc		
Vol XLVI (1877)		Rough notes on some ancient sculpturings on rocks in Kumaon, similar to those found on monoliths and rocks in Europe H Rivett-Carnac (With 6 Plates) .....	1
		The Kumúr range Babu Chandrasekhara Banárjī .. .. .	16
	Cp	Note on a Copper plate grant found in the Record Office of the Cuttack Collectorate Babu Rangalila Banerjee (With a Plate)	149
	A	Note on Khánj-i-Khar Garh in the District of Bardwán, Jahanábád Babu Gour Das Bysack . . . . .	165
	Cp	Notes on, and translations of, three Copperplate inscriptions from Sambalpur Babu Pratapa Chandra Ghoshá .. .. .	173
	R	Notice of a prehistoric Burial place with cruciform Monoliths, near Mungapet in the Nizam's Dominions William King (With 2 Plates).....	179
XLVII (1878)	Cp	A Copperplate grant from Bandá Dr. Rajendralala Mitra (With a Plate) . .	73
	Cp	Notes on two Copperplate inscriptions found in the Hamirpur District V A Smith With a note by Babu Prannath Pandit .	80
		The Antiquities of Bigura (Bogra) H Beveridge .....	89
XLVIII (1879)	R	Prehistoric Remains in Central India J H Rivett-Carnac (With 5 Plates) ....	1
	I & Sc	Bulandshahar Antiquities F S Growse (With 3 Plates) With a Note by Dr. Rajendralala Mitra .....	270
	A & I	Observations on some Chandel Antiquities V A Smith and F C. Black (With 6 Plates) .....	285
XLIX (1880)	A	Description of the Great Siva Temple of Gangai Kondapuram and of some other	

Journal			
Vol XLIX (1880)	R	places in the Trichinopoli District. Lieut -Col. B. R Branfill (With a Plate )	1
		Rude Megalithic monuments in North Arcot Lieut -Col B R Branfill (With a Plate.)	8
	I.	Note on an inscription found upon a stone lying near the ruins of a Masjid on Lanka Island, Walar Lake, Kashmir. Major H. S Jarrett .....	16
	V.	Memorandum on Clay discs called spindle whorls and votive seals found at Sankisa, Bihar and other Buddhist ruins in the North-Western Provinces of India H. Rivett-Carnac. (With 3 Plates ) ... ..	127
	V	Supplementary Memorandum By the same.	137
L (1881.)		On the identity of Upello with Upaplava. Pandit Rishi Kesh Bhattacharya .....	103
	V.	Relics from Ancient Persia in Gold, Silver and Copper No I. Major-General A Cunningham. (With 9 Plates ) .....	151
LI. (1882 )	P	Note on some earthen pots found in the alluvium at Mahesvara (Mahesar) P N Bose (With 2 Plates ) .. .....	226
LII (1883.)	V.	Relics from Ancient Persia, in Gold, Silver, and Copper No II Major-General A Cunningham (Wth 2 Plates ) ....	64
	I.	Note on a Sanskrit Inscription from the Lahptui District Dr Rájendralala Mitra	67
	A	Notes on the Remains of old Fort William, discovered during the erection of the East Indian Railway Company's Offices R Roskell Bayne (With 5 Plates ) . ...	105
	A	On the temples of Deoghar Dr. Rájendra- lala Mitra (With a Plate ) ....	164
	R	On stone implements from the North Western Provinces H Rivett-Carnac (With 3 Plates). ....	221
	Sc & V.	The town of Bulandshahar F S Growse. (With 2 Plates.) .....	270

Pro- ceedings  (1865)	I	Inscription on a Baoli at Khasia. J Beames	66
	A.	Runs in Manbhúm Lieut R C Beavan .	66
		Large mass of iron found under the ruins of a temple near Jubbulpore Lieut W G Murray and Mr J Lewis (With a Plate)	76
	R.	Flint arrow heads found in the Jubbulpore district Lieut Swiney . . . . .	77
	A	Antiquities of Gaya T F Peppe and C Horne . . . . .	80, 150, 162
	A	Antiquities at Banat, Ajmir, Gwalior, Kha- juráha and Mahoba Major-General A Cunningham . . . . .	97
	A.	Remarks on some temples in Kashmir Bishop Cotton . . . . .	165
	I	Some remarks on the rock-inscriptions near Khalsi R E Forrest . . . . .	199
(1866)	R	A perforated stone found on a "chabutra" . at Jubbulpur V J Caey (With a Plate) . . . . .	135
(1867)	R	Stone implements found in India W T Blanford, V Ball and others . . . . .	136
(1868)		Note on the village of Paindhat in the District of Mampuri F S Growse ...	63
		An old relic in the shape of a human iron cage Rev F F Mazuchelli . . . . .	79
	R	Cromlechs of Central India J Mulheran (With a Plate) . . . . .	116, 148
	R	Cromlechs in Coorg Captain R A Cole (With 2 Plates) . . . . .	151, 184, 243
	I.	Facsimile and sealing wax impression of an inscription found in Rajsháhí Babu Kumára Chandranáth Raya . . . . .	163
	R	Flint implements collected in the neighbour- hood of Jabalpur Col. R E Oakes ...	51
	R.	Memorandum on Cromlechs found in Coorg Lieut R E Cole . . . . .	54



Pro- ceedings	Cp	Notes on a copperplate Inscription in the possession of certain Kols at Nágpur Babu Bakhal Das Haldar .....	203
(1869.)	R	Notes on the remains found in a Cromlech at Coorg Dr T Oldham .....	226
		Note on some Agate beads from North-Western India W. Theobald (With a Plate) .....	253
(1870)	I & Sc	Inscription on the back of a statuette found at Kopari, Zillah Balasore J Beames (With a Plate) .....	4
	I	Observation on a Sanad, granted by Sháh Alam to Rája Pityámbar Mitra Bahádur H Blochmann .....	6
	R.	Note on the Kitchen-middens of the Andaman Islands Dr F Stoliczka .....	13
	R & P	Iron implements, etc., found in a cromlech in the estate of Major Sweet, in the south of the Nilghery plateau Col G H Saxton .....	52
	R	Collection of stone implements from Central India H Rivett-Carnac.....	51
	V	Silver and copper objects found near the village of Gungeria. A. Bloomfield (With a Plate) .....	131
	R	A stone implement from Prome W. Theobald. ....	220
	I & Sc	A San-krit Inscription and several drawings of rude Carvings, near Attock. Major F. W. Stubbs .....	211
	R	Stone implements from Dibrugarh. Lieutenant E H Steel (With 2 Plates) ..	267
	A.	The Monolith at Ko-umbha in the Allahabad District C A Elliott .....	291
	I.	Two inscriptions from Patna and the Mandar Hill Dr. Rájendrakála Mitra .....	294
	R.	On some North Arrakan Celts St John ..	83
		On some old Dutch records of the settlement of Chinsurah E Lethbridge.....	85
	R.	Two copper axes Captain W L Samuells .....	231

Pro- ceedings	I	Note on three Arabic Inscriptions by early Muhammadan Kings of Bengal, received from Mr A Broadley H Blochmann ..	245
(1871)	A	A set of photographs of temples, etc in Behar T. F Peppe .....	251
(1872)	R	A collection of Celts from Burma Captain Fryer .....	46
	I	Several Persian Inscriptions from Badāon H Blochmann ..	47
	Cp	A Copperplate Inscription found at Kārenne, Hill Tracts Arrakan Captain W G. Hughes .....	138
	I	Two Persian inscriptions from Sambhalherā, Muzaffarnagar, North Western Provinces, from A C Cadell H Blochmann ....	165
	I	Three Persian inscriptions from Kol, near Aligarh From E T Atkinson H Blochmann .....	166
	I.	Some Persian inscriptions from Miyan Mir Major F W Stubbs . . . . .	168
	A & I	On the Archaeological remains of Basantpur in Allah Bhagalpur J W B Martin ..	175
	Cp	Memorandum on Copper Grants found in the Malnad or Hill Tracts of the Nagar Division R Cole .....	193
	I	Two inscriptions of Bhagalpur Babu Rajendralala Mitra .....	198
	I	A Persian inscription on the tomb of Shaikh Minā at Lukhnau, from Major F W Stubbs H Blochmann .....	11
(1873)	I	Persian and Hindustani inscriptions on buildings in the city of Mathura, from F S Growse H Blochmann ....	12
	I	General Cunningham's Bengal Inscriptions (Muhammadan Period) H Blochmann	17
	A	Extracts from Notes on Hemadpauti Temples, etc, in West Berar Major R Gill	66
	Cp	Transcripts in Sanskrit of the two Gunja Agrahār and Koppa Gadde Sāsanas (See Proc for 1872, p 193) .....	75

Pro- ceedings	I.	Persian Inscriptions from Sonpat and Páni- pat J. G Delmerick .....	94
(1873 )	I	Persian Inscriptions from Sambhal, Amrohah and Muradabad Babu Gungá Pershad and Mr H Blochmann .....	98
	I.	Sanskrit Inscriptions from Sárabala and Ná- dáyana J G Delmerick and Dr. R. Mitra .....	102
	I	Persian Inscriptions from Jaunpur, Paniput and Muzaffarnagar H Blochmann ....	129
	I.	Persian inscriptions from Ráprí, Mahobá, and Dihli H Blochmann .....	156
	I.	Persian inscriptions from Biánah, Ajmir and Agiah T W Beale .....	159
	I.	Peisian inscriptions from Dihli, Badáon, Champanagar and Kanauj H Blochmann	197
(1874 )		Identification of towns in Jessore H J Rainey .....	19
	I.	Persian inscriptions from Íich, Piparai, and Abúhar and Súsá H Blochmann.....	69
	R.	On ancient perforated stone found in the Satpura Hills .....	96
	I	Persian inscriptions from Badáon, Dihli, Agra, Suján Deo, Benares, Sakft H. Blochmann .....	100
		Memorandum on operations of the Archæo- logical Survey for the season 1873-74 Major General A. Cunningham .....	108
	A	Memorandum on the remains at Garhwa, near Sheorájpur in the Allahabad District. E T Atkinson ....	123
	I	Persian inscriptions from Agra, Fatehpur Sikri, Fírúzábád, Gwalhar, from Mí T W Beale H Blochmann	160
	I	Persian Inscriptions from Agra, Sikandra and Nárnaul H Blochmann .. ..	209
(1875.)	I	Persian Inscriptions from Jaunpur and Til- bigrapur. H Blochmann .....	14

Pro c. Index			
(1875)	I	Stone inscription near Teoraa, Aheri Zemindari, District Chanda, Central Provinces, from Captain R. Beavan Honble E. C. Bayley (With a Plate)	62
	I.	Sanskrit inscriptions from Benares Dr R. Mitra	82
	A	On the present state of the ruins of Gaur L. B. B. King	93
	I	An inscription found at Srinagar near Madhapura W. B. Martin	107
	I	Persian inscriptions from Kashmir and Agra H. Blochmann	113
	I	Arabic and Persian Inscriptions from Delhi H. Blochmann	212
	I	Portuguese Inscriptions from Mombassa Dr D. Cunha	211
		Extract from an Arabic work relating to Aden in former time	218
(1876)	R	On stone weapons from Burma Major General Sir A. P. Phayre	3
	I	Arabic and Persian Inscriptions from Delhi, Rohtas and Sahasran H. Blochmann	4
	I	Sanskrit and Hindi inscriptions from Rohtas Dr R. Mitra	109
	R	On an ancient Kitchen Midden near Cuttack. V. Ball	120
	R	On stone implements found in the Tributary States of Orissa	122
	Cp	Copper plate grant of Govinda Chandra of Kanauj Dr R. Mitra	130
	A	Ancient dwellings and Tombs in Baluchistan Captain E. Mockler	172
(1877)	Cp	Copper land grant from Pandukeswar Dr. R. Mitra (With a Plate)	71
	I.	Arabic and Persian inscriptions from Hisar, Iruzzah, Hansi and Azamgarh H. Blochmann	99, 117

Pro- ceedings (1877)	P	On ancient pottery, etc from Baluchistan. W. T. Blanford (With a Plate). .. ..	157
	I	On the Háthigumpha Inscription Dr R. Mitra .. . . . .	163
	I.	Persian Inscriptions from Jessore H Bloch- mann ..... ..	256
	A	Antiquities of Buddha Gaya. Dr R Mitra	258
(1878)	Sc	Figure of Buddha found at Sárnáth. H. Rivett-Carnac. . . . .	66
	Sc.	A Buddhist sculpture from Pathári Captain J Waterhouse and Dr R. Mitra (With a Plate) ... . . . .	122
(1879)	I & A.	Donative Inscription from Rajaugarh. Dr. R Mitra. .... .	157
	Sc	Description of stone carvings in the Doab. R Rivett-Carnac (With a Plate) ...	189
	I.	Two small Buddhist Inscriptions, in Sandwé District, Airakan Division Lieut Col G E Fryer (With a Plate) .. .	201
	Cp.	A copper plate inscription from Nirmand, in Kulu Dr R Mitra . . . . .	212
		Note on an inscription from the Gate of the Kúshna Dváraka Temple at Gaya. Dr. R Mitra ..... ..	218
(1880)		Old palm leaf Manuscripts, in Bengali cha- racters and dated in the Sena era Dr R. Mitra. . . . .	4
		A rock-cut inscription near the falls of Keoti Kunda Dr A F Rudolf Hoeinle ... .	55
		Remarks on a Pali inscription from Báihut Dr R Mitra .. ..	58
		Note on an inscription on an ancient Mosque in Koh Inám, zillah Allahabad Major H S Jarrett ... ..	72
		Two inscriptions from Buddha Gaya. Dr. R Mitra (With a Plate) ... .	76
		Two Copper plate Inscriptions from Sylhet Dr. R. Mitra .. ..	141



Pro- ceedings	I.	Note on a Kutila inscription from Mungir W E Westmacott (With a Plate) ..	45
(1873 )		Note on Mahisamatī or Mahesvara (Mahesar) on the Naimadā, and the identification of Hiouen T'sang's Mahesvarapura. P. N. Bose .. .. .	127

*N B*—Some more notices of stone implements will be found in the Classified Index to the Scientific Papers of the Society, Chapter VI, Ethnology.





Journal	B., L, G, etc.	Bactrian and Indo-Scythian coins (continued)	
Vol	G.	James Prinsep (With a Plate) . . .	405
II		Note on the Inscription on the Hindu Coins	
(1832)		J. Prinsep . . . . .	649
(III)	B. & I.	Memoir on the ancient coins found at Beghram, in the Kohistan of Kabul. Chas. Masson (With 6 Plates) . . . . .	153
(1834.)	H. & G	Note on the coins found by Captain Cautly at Behat. James Prinsep (With a Plate) . . . . .	227
	I & S.	On the coins and Relics delivered by M le Chevalier Ventura, General in the service of Mahārāja Ranjit Singh, in the Tope of Manikyāla. James Prinsep (With 2 Plates) . . . . .	313
	H	Note on two coins of the same species as those found at Behat, having Greek inscriptions Major D L Stacy. (With a Plate) . . . . .	431
	I, S, H	Continuation of observations on the Coins, and Relics discovered by General Ventura, in the Tope of Manikyala J. Prinsep (With a Plate) . . . . .	436
	R & I	Note on the Coins, discovered by M Court Jas Prinsep. (With 2 Plates) . . . . .	562
	R	Correction of a mistake regarding some of the Roman Coins found in the Tope at Manikyala, opened by M Court. Lieut. Alexander Cunningham . . . . .	635
IV	B & I.	Further notes and drawings of Bactrian and Indo-Scythic coins. James Prinsep. (With 8 Plates.) . . . . .	327
(1835)	I & G.	On the connection of various ancient Hindu Coins with the Grecian or Indo-Scythic Series. James Prinsep. (With 6 Plates)	621
	H & Su	Notice of Ancient Hindu coins. James Prinsep (With 4 Plates.) . . . . .	668

Journal	B, I & S	Second Memoir on the ancient coins found at Beghram, in the Kohistan of Kabúl (With 3 Plates) ... ..	1
Vol. V (1836)	I	Note on some Indo-Scythic Coins found by Mr C Masson at Beghram, in the Kohistan of Kabúl Johannes Avdall .....	266
		Third Memoir on the ancient coins, discovered at the site, called Beghram, in the Kohistan of Kabúl Charles Masson ..	537
	B	New varieties of Bactrian coins from Mr Masson's drawings and other sources James Prinsep (With a Plate) .....	548
	I, G & H	New varieties of the Mithraic or Indo-Scythic series of coins and their imitations James Prinsep (With 3 Plates) .....	639
	B & I	New types of Bactrian and Indo-Scythic coins James Prinsep (With a Plate) ..	720
VII (1837)	I	On the explanation of the Indo-Scythic legends of the Bactric coins through the medium of the Celtic Dr J Swiney ..	98
	S, H & C	Specimens of Hindu coins descended from the Parthian type, and of the ancient coins of Ceylon James Prinsep (With 3 Plates) .....	288
	Su	The legends of the Saurashtra group of coins deciphered James Prinsep (With a Plate).....	377
VII (1838)	S	On the application of a new method of black-printing, with examples of unedited coins printed in facsimiles James Prinsep (With a Plate) ....	414
	B	Additions to Bactrian Numismatics and discovery of the Bactrian alphabet James Prinsep (With 3 Plates) .	636
		Report on the Weights, Measures and Coins of Cabul and Bukhara Nowrozjee Furdoujee .....	892

Journal	H	Coins and Relics from Bactria. James Prinsep (With 2 Plates).....	1047
Vol VII (1838)	H	Ancient Hindu Coins from Jaunpur and Oojein James Prinsep (With 2 Plates)	1052
IX. Part I (1810)	B	Account of Coins found at Bameean Capt Hay (With a Plate).....	68
	B	Note on Bameean Coins H Torrens .....	70
	B	Note of discoveries of gems from Kandahar Lieutenant Conolly .....	97
	B	Note on above H. Torrens. (With 3 Plates) .....	100
	B	Notice of some counterfeit Bactrian coins. Captain Alexander Cunningham .....	513, 393
	B & S	Notes on Captain Hay's Bactrian coins Capt Alexander Cunningham (With 4 Plates) .....	531
	Part II	Description of, and deduction from, a consideration of some new Bactrian coins Lieut Alexander Cunningham (With a Plate) .....	867
		Extract from Proceedings of the Numismatic Society of London on the mode of taking casts .....	938
		Note on the coins of Mias Lieutenant A Cunningham ... ..	1008
	B & I	Second Notice of some forged coins of the Bactrian and Indo-Seythians Lieutenant Alexander Cunningham. ....	1217
X Part I (1811)	B & H	Description of some ancient gems and seals from Bactria, the Panjab and India Captain A Cunningham (With a Plate) ..	117
	B <sub>2</sub>	Mode of taking fac-similes of coins Vincent Trogar ... ..	158
Part II	B <sub>2</sub>	Muhammadan coins of Benal, found at Haurah Hon H T Prinsep (In the Proceedings) .....	168
	B & S	Notes on the same found at Begram L S Chapman (With a Plate) ....	613

Journal	B	Second notice of some new Bactrian Coins Capt A Cunningham (With a Plate)	130
Vol XI	B	On some gems and coins H. Torrens. (With a Plate)	137
Part I (1812)	S, etc	On a cylinder and certain gems, collected from Herat by Major Pottinger H Tor- rens (With a Plate) ... ..	316
XII Part I (1813)		Descriptive list of some coins lately received from the University of Christiana by the Asiatic Society Dr. E Roer .	413
XIII Part II (1811)	A	Remarks on a Buddhist Coin or Medal, sent to the Society through Captain Macleod, by His Highness the Prince of Makhara Captain T Latter. (With a Plate) ....	571
XIV Part I (1815)	I.	Notice of some unpublished coins of the Indo-Scythians Lieut Alexander Cun- ningham (With a Plate) .....	430
XV 1816)	A	The historical coins of Arakan. Captain A. P Phayre (With a Plate) .....	232
	A.	The symbolical coins of Arakan Lieut T. Latter (With a Plate) .....	238
	Bg.	On the Coins of the independent Muham- madan Sovereigns of Bengal J. W Laidlay (With 2 Plates) .....	323
XVIII Part II (1819)		On preparing facsimiles of coins, etc. J W Laidlay .....	976
XX (1851.)	I.	Translation of some uncertain Greek legends on coins of Indo-Scythian princes of Cabul. H. Torrens. ....	137

Journal		An account of eight Kufic silver coins. E Thomas (With a Plate) . . . . .	537
Vol XX (1851.)	R	Remarks on some lately discovered Roman gold coins Captain Drury. Communicated by General Cullen through the Hon'ble W Elliott. ....	371
	S.	On Sassanian Coins. Edward Thomas. ....	525
XXI. (1852)	G	Some ancient Gupta gold coins, found near Benares. Major M. Kittoe and E C Bayley (With a Plate) . . . . .	390
	G. & H	Note on three ancient coins found at Muhammadpore, in the Jessore District Babu Rájendralála Mitra (With a Plate,) ..	401
	Gh	Note on Col Stacy's Ghazni coins. E Thomas. (With a Plate.) . . . . .	115
XXIII. (1854)	H.	Coins of Indian Buddhist Satraps, with Greek inscriptions Major A. Cunningham. (With 2 Plates.) . . . . .	679
XXIV (1855)	G.	On the coins of the Gupta dynasty Edward Thomas . . . . .	483
XXVII (1858)		Catalogue of coins in the Cabinet of the late Col Stacy, with the estimated prices attached. E Thomas . . . . .	251
		Coin collections lost during the rebellion. George H Freeling. . . . .	169
XXXII (1863)	A.	Memorandum on some medals and coins in the Museum of the Asiatic Society, found near Mergui on the Tenasserim Coast Lieut. Col. A. P. Phayre (With 6 Plates) . . . . .	271

Journal	H.	On ancient Indian Weights E Thomas	251
Vol XXXIII (1864)		Table of the coins of former Governments more or less current in the Bazars of the Gujarát District in 1859. (With 4 Plates)	434
XXXIV (1865)	H	Ancient Indian Weights E Thomas (With 2 Plates) ... .. 51, 46, 14	
	B.	Coin of Sophytes. General A Cunningham	46
	H	Coins of the nine Nagas, and of two other dynasties of Narwar and Gwahior Major- General A Cunningham (With a Plate)	115
XXXVI (1867)	Bg & P	The initial coinage of Bengal. E Thomas (With 2 Plates) .....	1
XL (1871)	P	Note on a gold coin of Prince Fírúz Sháh Zafar, son of Fírúz Sháh of Delhi Hon'- ble E C Bayley (With a Woodcut) .	160
XLI (1872)	A	Note on an Arakanese coin Capt G E Fryer (With 3 Woodcuts) .	201
XLII (1873)	H	Notes on two coins from Kausambhi. Hon'ble E C. Bayley. (With a Wood- cut) .. .. .	109
	H.	Further note on coins from Kausambhi Hon'ble E C Bayley . ..	191
	Bg	Contributions to the History and Geography of Bengal, from unpublished coins H Blochmann (With 2 Plates) ....	209
	P. & Bg	Note on two Muhammadan coins Hon'ble E C Bayley .. ...	311
	Bg	The initial coinage of Bengal Part II E Thomas (With a Plate) ... . .	343
XLIII (1874)	P	Note on a new gold coin of Mahmúd Sháh bin Muhammad Sháh bin Tughlaq Sháh,	

Journal.		of Dillh. J. G. Delmerick. (With a Woodcut) .....	97
Vol. XLIII (1874.)	S.	Note on a hoard of 543 Sassanian coins in the possession of Colonel H. Hyde. Hon'ble E. C Bayley. (With a Plate.)...	99
XLIV. (1875)	H P., M, J Bg.	On a coin of Kunanda from Karnál Dr. Rájendralála Mitra. (With a Woodcut).. List of rare Muhammadan coins. J. G Delmerick. .... Contributions to the History and Geography of Bengal. From unpublished coins. H. Blochmann. (With a Plate) .....	82 126 275
XLV. (1876.)	P., M , Bg, etc	List of rare Muhammadan coins. No. II, (coins of the kings of Dillhi, Malwah, Bengal, Kulburga and Kashmir). J. G. Delmerick. (With 2 Plates.) .....	291
XLVIII (1879)	H.	The copper coins of the old Mahárájás of Kashmir C. J. Rodgers. (With 2 Plates ) The copper coins of the Sultans of Kashmir. C J Rodgers. (With a Plate.) .....	277 282
XLIX. (1880)	H. H. P. P.	The coins of the Mahárájás of Kángará. C. J. Rodgers (With a Plate ) ..... Coins of the Sunga or Mitra Dynasty, found near Rámanagar or Abichhatra, the ancient capital of Panchála, in Rohilkhand. A. C. Carlleyle. (With a Plate.) ... Coins of Ghiásuddín and Muizzuddín bin Sám C. R Stulpnagel. (With a Plate ) Coins supplementary to Thomas' Chronicles of the Pathan Kings of Dehli C. J. Rodgers (With 4 Plates.) .....	10 21 29 207, 81

Journal	H.	Memorandum on coins of the Sunga Dynasty by H. Rivett-Carnac (With 3 Plates.) ..	87
Vol XLIX (1860)	H	Note on some copper Buddhist coins H. Rivett-Carnac (With 2 Plates) ...	138
	M.	Copper coins of Akbar Chas J Rodgers (With 2 Plates.) . . . . .	213
L. (1881)	P. & Bg	A new find of early Muhammadan coins of Bengal Dr A. F. Rudolf Hoernle (With 4 Plates) . . . . .	53
	H	On the coins of the Sikhs. Chas J Rodgers (With 5 Plates) . . . . .	71
		On the coins of Charibael, king of the Homerites and Sabæans Major W. F. Prideaux (With a Plate) . . . . .	95
	G	Relics from Ancient Persia in gold, silver and copper. Major-General A Cunningham (With 9 Plates) . . . . .	151
LII (1883)	H	The Pagoda or Varāha coins of Southern India Dr. G Bidie (With 3 Plates) .	33
	P.	Coins supplementary to Thomas' Chronicles of the Pathan Kings of Delhi No. III. Chas J Rodgers (With 2 Plates) .	55
	M.	The Rupees of the months of the Ilāhī years of Akbar Ch J Rodgers (With 2 Plates) . . . . .	97
	Bg	A new find of Muhammadan coins of Ben- gal (Independent period Nasiruddin Mahmud II and Barbak Shah) Dr A F Rudolf Hoernle (With 2 Plates) .	211
Pro- ceedings (1865)		On double currency in India E Thomas and Major Lees . . . . .	208
(1867)	B	A coin of Sophytes Major C H Strutt (With a Woodcut) ... ..	106



Pro- ceedings (1868.)	B	A rare tetradrachm of Antimachus Theos, and a coin of Azilises. H F Blanford. (With a Plate inserted as No III in the Proceedings for 1869) ..... .. 164
(1869)	M.	Coins of Jabáingír. H Blochmann (With a Plate) ... .. 245, 255 Note on a Malwah Gold Mohur. H Blochmann. (With a Woodcut) ... .. 266
(1870)	P & J.  P M  P	Muhammadan Copper coins, dug up near Partábgarh, presented by M. L Ferrar. H. Blochmann ..... 151 Muhammadan Coins, sent by A Carlleyle E. C Bayley. (With a Woodcut)..... 181 Counterfeit coins of obsolete Muhammadan muntages Major F. W. Stubbs..... 302
(1871)	M.  B	On a coin of Muhammad Bedar Bakht. H. Blochmann ..... 97 A hoard of 74 Indo-Bactrian Hemidrachms in the Rawalpindi District J. G Delmerick. .... 276
(1872)	H  B.  P	Three large and three small Assam silver coins from Mr. J M Foster. Babu Pratápa Chandra Ghosha . . . . . 2 Gold coins from the Island of Cheduba. Col Sir A Phayre ..... 3 A unique tetradrachm of a new Bactrian King, Plato the Illustrious J G. Delmerick. . . . . 34 A silver coin of Udaipur and of Alauddin Muhammad Sháh Sirdar Attar Singh .. 55 Two Dakhn and one Bengal silver coins, exhibited by Col. H. Hyde H. Blochmann..... 118

Pro- ceedings	B	On the notice of the coin of Plato E. Thomas. ....	174
(1872)	P & Bg	Readings of rare Bengal coins of Col Guthrie. Hon'ble E C Bayley.....	199
(1873)	P	Pathan Coins from Rupar H Blochmann	155
(1874)	P	A gold coin of Mahmúd ibn Muhammad Shah ibn Tughluq Shah J G Delmerick	92
	Bg	On a coin of Ghiyásuddin Azam Sháh. Hon. E C Bayley. ....	156
		On Col H Hyde's gold and silver coins H Blochmann .. ...	207
	P	On five Muhammadan silver coins . ...	239
(1875)	H	On a coin of Kunanda. E Thomas and Babu R Mitra . ...	163
(1876)		Gold, Silver and Copper coins from Kashgar H Blochmann ..	90
	P	Unique gold coin of Nasiruddin Mahmúd Sháh H Blochmann (With a Woodcut)	91
	M	On a silver coin of Shahjebán II .....	139
(1877)	Bg	On a coin of Muhammad Adil Sháh H Blochmann .. .	156
(1878)	P	A unique gold coin of Jaláluddin Firíz Sháh II of Dīhlī H. Blochmann (With a Woodcut) . . .	65
	H	On a coin of Toramána Dr. R Mitra (With a Woodcut) . . .	191
(1879)	I & R	Coins from the Abin Posh Tope near Jalálábád, Afghánistán Mr Simpson and Captain Waterhouse. ....	77

Pro- ceedings.	P & Bg.	Muhammadian coins of Delhi and Bengal Dr. R Mitra .. .. .	119
(1879.)	I & R.	Description of the coins found in the Ahin Posh Tope Dr. A. F. Rudolf Hoernle (With 3 Plates) .. .. .	122
	Gh.	Coins of Khusrav Sháh and Khusrav Malik, the Ghaznavi Kings of Lahore. C J. Rodgers (With a Plate) ... ..	178
	I & R	Notes on the gold coins found in the Ahin Posh stúpa Major-General A. Cunning- ham (With 3 Plates) ... ..	205
	L	Remarks on the above. Dr. A. F. Rudolf Hoernle. .. .. .	210
	.		
(1880.)	H.	Coins of the Sunga or Mitra Dynasty. Dr. R. Mitra .. .. .	8
	A.	On Arakan coins Dr R. Mitra ....	53
	B. & H	On Bactrian and South Indian gold and silver coins. Major-Generals G. G. Pearse and A. Cunningham .. .. .	115
	R, I, G	On eleven gold coins, Roman, Indo-Scythian and Gupta. Dr A. F. Rudolf Hoernle ...	118
(1881)	Gh.	On coins of Gazni Sultans C J. Rodgers	5
	G, J, etc	On some gold and silver coins, Gupta, Jaun- pur, etc. Dr A. F. Rudolf Hoernle (With 2 Woodcuts) .. .. .	39
	H.	Two old Hindi silver coins from Sarnáth. Dr. A. F. Rudolf Hoernle (With a Wood- cut.) ... ..	41
	J.	Silver coins of the Jaunpúr Sultans Dr R. Mitra. .. .. .	41
	H	Some Copper coins dug out at Khokhrakote near Rohtak Dr A. F. Rudolf Hoernle (With a Woodcut) .. .. .	71
	P.	On a silver coin of Shamsuddin Kaimurs J. G. Delmerick and Major-General A. Cun- ningham (With a Woodcut.) .. ..	157

Pro- ceedings (1882)	Su.	On a collection of Surashtrian coins. Dr. R Mitra .... . 41
	H	On a gold Ramtinkī coin. Hon'ble J Gibbs. 49
	H	On five Andhrabhritya coins. Hon'ble J Gibbs . . . . . 59
	G	On three gold Gupta coins Dr A F Ru- dolf Hoernle (With a Woodcut) . 91, 104
	H	On a number of Buddhist coins found at Toomluk. Dr A F Rudolf Hoernle .. 111
	Su	On a number of Surashtrian silver coins. Dr A F. Rudolf Hoernle . . . . . 114
		A set of fifty-five specimen coins struck from the old dies in the Calcutta Mint. Col. J. Tennant .... . 139
(1883)	M	On two enormous gold coins of Sháh Jehán and Aurangzib. Hon'ble J Gibbs. (With a Plate) . . . . . 3
	M	On some very rare Muhammadan coins. Hon'ble J Gibbs (With a Woodcut) .. 4
	M	On Mogul silver coins called <i>nisárs</i> , etc C J Rodgers (With a Plate) .. . 11, 59
	Bg	On some coins of Ilyás Sháh and Sikandar Sháh of Bengal Dr A. F. Rudolf Hoernle. . . . . 59
	H	Note on Ramtinkis Hon'ble J Gibbs .. 76
		On coins of the Durrani Dynasty M Long- worth Dames .. . 96

## III.

## HISTORY.

[N B. The entries marked with (\*) are partly antiquarian; those marked with (†) partly philological.]

As Res	Remarks on the city of Tagara Lieut. Francis Wilford . . . . .	369
Vol I	A conversation with Abram, an Abyssinian, on the city of Gwender and the sources of the Nile. Sir William Jones . . . . .	383
II (1790)	† On the descent of the Afghans from the Jews Henry Vansittart With a note by Sir William Jones . . . . . On the Chronology of the Hindus Sir William Jones . . . . . A Supplement to the Essay on Indian Chronology Sir William Jones. (Pl. 1 a Plate) . . . . .	67 111 389
III (1792)	An account of the coins of the Sulta Paniput and of the even . . . . . On some of the coins in Persian by Cassi Raja pur, who was present at the battle Tran. . . . . On Egypt . . . . . On the Origin and Families of Nations The ninth anniversary Discourse. Sir William Jones. . . . .	88 295 479
IV. (1795)	On Asiatick History, Civil and Natural. The tenth anniversary discourse Sir William Jones . . . . . A dissertation on Semiramis, the origin of Mecca, etc., from the Hindu Sacred Books Lieutenant Francis Wilford . . . . .	1 363

As Rec	Historical Remarks on the Coast of Malabar, Jonathan Duncan .....	1
Vol V. (1798)	On the Chronology of the Hindus Captain Francis Wilford. (With a Table) .....	211
VI (1799)	On Mount Caucasus Captain Francis Wilford ....	155
VII (1801)	A Chronological Table of the Moghul Emperors, from Amir Timur to Alamgir II, the father of the emperor Shah Alam, being from A H 736 to 1173, or A D 1335 to 1760 Lewis Ferdinand Smith	447
VIII (1805)	An Essay on the Sacred Isles in the West, with other Essays connected with that work Captain F. Wilford (With 3 Plates) .....	215
IX (1807)	An Essay on the Sacred Isles in the West, with other Essays connected with that work Captain F. Wilford (With a Table) .....	32
	Essay II Anu-Gangam or the Gangetic Pro- vinces and more particularly of Magadha ..	32
	Essay III of the Kings of Magadha, their Chro- nology ....	82
	Essay IV Vicramaditya and Sahvahana, their respective Eras, with an account of the Bala- Riyas or Balhar Emperors .....	117
X (1808)	An Essay on the Sacred Isles in the West, with other Essays, connected with that work Captain F. Wilford	
	Essay V Origin and Decline of the Christian Religion in India (With 2 Plates) ....	27
XI (1810)	An Essay on the Sacred Isles in the West, with other Essays connected with that work	
	Essay VI of Swetam or the White Island, called Sacram .....	1
XIV (1822)	On the ancient Geography of India Lieut-Col. Francis Wilford .....	373

As. Res	An Essay on the Hindu History of Cashmir Horace Hayman Wilson. ....	1
Vol XV. (1825.)	Of the Pandæa Regio of the classical writers H. H. Wilson.....	95
	On the date of Yudhisthir, etc H H Wilson ....	97
	On the war between Jarasandha and Crishna H H. Wilson .....	100
	On the Gandhâras or Gandari and other nations of the Panjab and North West of India H. H. Wilson. ....	103
	On the ancient names of Cashmir in classical writers. H H Wilson .....	115
	* An account, Geographical, Statistical and Historical, of Orissa proper or Cuttack. A Stirling (With 5 Plates ) .....	163
XVI (1828 )	Historical and Statistical sketch of Aracan Charles Paton .....	353
XVII (1832 )	Remarks on the portion of the Dionysiacs of Nonnus, relating to the Indians H H. Wilson. ....	607
Journal. Vol II (1833 )	On the reputed descendants of Alexander the Great, in the Valley of the Oxus Lieut. Alexander Burnes .....	305
III (1834 )	Supplement to the Historical Remarks on the Allahabad Inscription, No 2 Rev. W. H Mill .....	339
IV. (1835 )	Notice of Pagan, the ancient capital of the Burmese Empire Lieut. Col H Burney .....	400
V. (1836 )	Memoir of the Life and writings of St Nierses Clajensis, surnamed the Graceful, Pontiff of Armenia Johannes Ardal .....	129

Journal		
Vol V (1836)	Notes on the Buddhas from Ceylonese authorities, with an attempt to fix the dates of the appearance of the last four, being those of the Mahābhadrā Kalpi (or present age) Capt. J Forbes .....	321
	Memoir of a Hindu colony in Ancient Armenia Johannes Avdall .. .. .	331
	Note on the origin of the Armenian era and the reformation of the Haican Kalendar Johannes Avdall .....	384
	Conjectures on the march of Alexander M. Court	387
	Examination of some points of Buddhist Chronology George Turnour . . . . .	521
	A brief account of Mas'ūd, known by the name of Farid Shikarganj or Shakarbar Munshi Mohan Lal .. . . .	635
	Notice of the Vallabhi dynasty of Saurashtra, extracted from the Buddhist records of the Chinese Eugene Jaquet ... . .	685
	Note on a remnant of the Hun nation Captain W. Foley . . . . .	813
VI (1837)	The history of Labong from the native records consulted by Dr D Richardson ... . .	55
	Singular narrative of the Armenian King Arsaces and his contemporary Sapor, King of Persia, extracted from the Armenian Chronicles Johannes Avdall ... . .	81
	Some account of the wars between Burma and China together with the journals and routes of different embassies sent to Peking by the King of Ava, taken from Burmese documents Lieut Col H Burney .....	542, 405, 121
	An examination of the Pali Buddhistical Annals Hon'ble George Turnour .. . . .	713, 501
	History of the Garha Mandala Rajas Captain W H Sleeman .....	621
	History of the Rajas of Orissa from the reign of Raja Yudhishtira, translated from the Vansāvali Andrew Stirling .....	756
	Account of the Tooth relic of Ceylon, supposed to be alluded to in the opening passage of the Feroz kūt inscription Hon'ble George Turnour .....	856



Journal	History of Cooch Behar, being an extract of a passage from Dr Buchanan's account of Rangpur	
Vol VII (1838)	Major F Jenkins . . . . .	1
	Account of the expedition of Chach(Chacha) extracted from the Chach Nameh, and extracts from the Tohfath ul Khwan Ensign Postans . . . .	93, 297
	An examination of the Pali Buddhistical Annals No 3. Hon'ble George Turnour. . . . .	686, 789
	The same No 4 . . . . .	919
	The same. No 5 . . . . .	991
VIII (1839)	Collection of facts which may be useful for the comprehension of Alexander the Great's exploits on the western banks of the Indus M <sup>r</sup> Court. (With a Map).....	304
IX Part I (1840)	Points in the history of the Greek and Indo-Scythian Kings in Bactria, Cabul and India, as illustrated by deciphering the ancient legends on their coins. Christian Lassen . . . . .	251, 339, 449
Part II	The same. (Continued) . . . . .	627, 733
	On the historical Geogriaphy of Hindustan, and the origin of the social state among the Hindus Jas Bird. . . . .	884
	A short Memoir of Mechnthar Ghosh, the Armenian legislator Johannes Avdall . . . . .	967
X Part I (1841.)	Note on the Brahooees Captain Hart . . . . .	136
	Of the early History of Sindh from the Chach Namah and other authorities Lieut Postans. . . . .	183, 267
XII Part I (1843)	Brief history of Kelat, brought down to the deposition and death of Mehrab Khan, Brahoe Major Robert Leech . . . . .	473
XIII. Part I (1841)	On the history of Arakan Capt A P. Phayre . . . .	23
	View of the principal events in the Karnatic, between 1564 and 1687, compiled from various authentic Memoirs and original manuscripts Colonel Mackenzie . . . . .	578, 421
Part II	Index to History of the Toorks by Baron Hammer Von Purgstall Dr. E Roer. . . . .	550

Journal	An account of the early Ghuljâees. Major R Leech	306
	An account of the early Abdalees. Major R Leech	115
Vol XIV	* Report of a trial for Rebellion, held at Moulnem by the Commissioner of Tenasserim (With a Plate)	717
Part I (1815)	Further notes respecting the late Osoma de Kôros Lieut Col Lloyd and A Campbell .....	823
Part II		
XVI	Remarks on the sequel to the Periplus of the Erythrean sea, and on the country of the Seres, as described by Ammianus Marcellinus Dr J Taylor	1
Part I (1817)		
Part II.	* Notes on places in the province of Bihar, supposed to be those described by Chy-I-t-Hian, the Chinese Buddhist Priest, who made a pilgrimage to India, at the close of the fourth century. A D Capt M Kittoe (With 3 Plates) .. . . . . .	953
	An attempt to identify some of the places mentioned in the itinerary of Huan Thsang Major William Anderson .....	1183
XVII	Verification of the itinerary of Huan Thsang through Arun and Indr, with reference to Major Anderson's hypothesis of its modern compilation Capt. Alexander Cunningham .....	476
Part I (1818)		
XVII	Verification of the itinerary of the Chinese Pilgrim, Huan Thsang, through Afghanistan and India, during the first half of the seventh century of the Christian era. Capt A. Cunningham (With a Map) .. . . . . .	13
Part II (1818)	Fragments of the history of Mooltan, Derajat and Bahawalpur, from Persian manuscripts Lieut R Macdigan .. . . . . .	559
	* Some account of the battle field of Alexander and Porus Capt James Abbott. (With a Plate) ..	619
XVIII.	A narrative of our connexions with the Dusanee and Gheanee Garrows, with a short account of their country Capt C S Reynolds.....	45
Part I (1819)		

Journal	General observations on the contending claims to antiquity of Brahmans and Buddhists Lieut Col Low .....	89
Vol XVIII. Part I (1849)	Addendum on the Battlefield of Alexander and Porus. Capt James Abbott .....	176
	The Rajas of Sialkote. Capt. James Abbott.....	177
XIX. (1850)	Some conjectures on the progress of the Brahminical conquerors of India Henry Torrens .....	1
	On the Ghassanite Kings Dr A Sprenger. ....	469
XX. (1851.)	A comparative Essay on the ancient geography of India Col F Wilford. ....	470, 227
	Chronology of Makkah and the Hijaz before Muhammad, chiefly founded upon genealogy Dr. A. Sprenger. ....	349
XXIII (1854)	* On the Ballads and legends of the Panjab Major J. Abbott (With a Plate) .....	59
	A Sketch of the Mahomedan History of Cashmere Lieut D J F Newall .....	409
	† Some Remarks on the origin of the Afghan people and dialect Lieut H. G Raverty .....	550
XXIV. (1855)	On the epoch of the Gupta dynasty. E Thomas ..	371
XXIX (1860)	Attempts of Asiatic sovereigns to establish a paper currency E. B Cowell .....	183
XXX (1861)	Note on Buddha Gupta. Dr Fitz-Edward Hall ....	139
	Letter on some recent statements touching certain of the Gupta kings and others Dr. Fitz-Edward Hall. ....	353

Journal	* Vestiges of three royal lines of Kanyakubja or Kanauj, with indications of its Literature Dr Fitz-Edward Hall .....	1
Vol XXXI (1862)	* Vestiges of the Kings of Gwalior Babu Rájendralála Mitra. (With 4 Plates) .....	391
XXXII (1863)	* Bhoja Raja of Dhár and his Homonyms Babu Rájendralála Mitra (With a Plate) .....	91
	* Aornos. Lieut. Col J Abbott .....	409
XXXIII (1864)	On the history of the Burmah Race Lieut Col A P Phayre .....	1
	Remarks on the date of the Pebewa inscriptions of Ríja Bhoja Major General A Cunningham ....	223
	Extract from a letter from Major General A Cunningham .....	229
XXXIV (1865)	Notes on the Gurjat States of Patna Major H B. Impey .....	101
	* On the Sena Rájás of Bengal as commemorated in an inscription from Rajshahi, deciphered and translated by C T Metcalfe Babu Rájendralála Mitra	128
XXXV (1866)	* Assyro-Pseudo-Sesostris. Hyde Clarke (With a Plate) .....	87
XXXVI (1867)	Note on Sirájuddaulah and the town of Murshidábád, taken from a Persian manuscript of the Táríkh i Mançúri H Blochmann .....	85
XXXVII (1868)	On the history of the Burmah Race Col Sir A Phayre .. . . .	74
XXXVIII (1869)	On the history of the Burmah Race Col Sir Arthur Phayre .....	29
XXXIX (1870)	A covenant of 'Alí, fourth Caliph of Baghdad. J Ardall .....	60

Journal	* The district of Dera Ismáíl Khan, Trans-Indus T W H Tolbort (With a Map) .....	1
Vol XL (1871)	A history of the Gakkhais J G Delmerick. ....	67
	Notes from the Muhammadan historians on Chutia Nágpur, Pachet and Palámau H Blochmann ..	111
	The Moghul invasions of Palámau. L R Forbes ..	129
	Note on the death of Humáyun C. J Rodgers. ..	133
	Note on the above. H Blochmann. ....	136
XLI (1872)	Note on Ghargaon, Asám J M Foster. (With a Plate) .....	32
	Koch Bihár, Koch Hájo and Asám, in the 16th and 17th centuries, according to the Akbarnámah, the Padisháhnámah and the Fathiyah 1 'Ibriyah. H. Blochmann .....	49
	The conquest of South India in the 12th century by Parákrama Báhu, the great King of Ceylon. T W Rhys Davids .....	197
	On a new king of Bengal and notes on the Husainí dynasty and their conquest of Chatgaon (Chittagong). H Blochmann .....	331
XLII (1873)	The history of Pegu. Major General Sir Arthur P Phayre .....	23, 120
	Authorities for the history of the Portuguese in India. T W H Tolbort .....	193
	* Contributions to the Geography and History of Bengal Part II, historical Based on inscriptions and unpublished coins H Blochmann (With 6 Plates.) .....	209
XLIII. (1874)	On the history of Pegu. Major General Sir A. P. Phayre (continued) .....	6
	Translation of an Arabic pamphlet on the history and doctrines of the Wahhábis, written by the grandson of Abdul Wahhab, founder of the sect J. O'Kinealy. ....	68

Journal	Annals of Omán, from early times to the year 1728 A D From an Arabic manuscript by Sheykh Sir- hán bin Sa'íd bin Sirhán bin Muhammad of the Benú 'Alí tribe, of Oman Transl and annotated by E C Ross . . . . . 111
Vol. XLIII (1871)	On the Barah Bhuyas of Eastern Bengal Dr James Wise (With 2 Plate) . . . . . 197 Notes on Sháh Ismá'íl Gházi, with a sketch of the contents of a Persian Manuscript, entitled "Risá- lat ush Shuhadá," found at Kánta Duár .. . . . 215 On the supposed identity of the Greeks with the Yavans of the Sanskrit writers Dr Rájendra- lála Mitra . . . . . 246 * Contributions to the Geography and History of Bengal No II H Blochmann . . . . . 280
XLIV. (1875)	Who were the Patan or Pathan Sultans of Dehli? Major G H Raverty . . . . . 24 The Barah Bhuyas of Bengal No II Dr James Wise .. . . . 181 * Contributions to the History and Geography of Bengal No III H Blochmann (With a Plate) . . . . . 275
XLV (1876)	Were the Sundubans inhabited in ancient times? H Beveridge .. . . . 71 The Bhars of Audh and Benares Patrick Carnegie Reply to several passages in Mr Blochmann's "Con- tributions to the History and Geography of Ben- gal" No III Major H G Raverty .. . . . 325
XLVI (1877)	Notes on the Bhars and other early inhabitants of Bundelkhand Vincent A Smith . . . . . 227
XLVII (1878)	Note on Gornkshanáth and the Yogis G R Grierson 138 The Pála Kings of Rangpur G A Grierson . 140 The Bangash Nawábs of Farrukhabád A chronicle (1713—1857) William Irvine Part I . . . . . 259 The Pála and the Sena Rájás of Bengal Rájendralála Mitra . . . . . 384
XLVIII (1879)	The Bangash Nawabs of Farrukhabád A chronicle (1713—1857) William Irvine Part II . . . . . 49

Journal.	Contributions to the History of Bundelkhand. Vincent A Smith .....	1
Vol L. (1881.)	On the revenues of the Mughal Empire H G. Keene .....	99
	The revenues of the Mughal Empire. Edward Thomas .....	147
	Contributions on the Religion, History, etc. of Tibet Babu Sarat Chandra Das .....	211, 235
Extra-No	On the genealogy of Bidyapati and the Rájás of Tirhut G A Gueison. (In Introduction to Maithólí Language, Part II). ..	39
LI (1882)	Memoir of the Author of the Tabaqát-i-Násirí. Major H G Raverty .....	77
LII (1883)	Notes on the history of Orissa J. Beames. ....	2
Pro- ceedings (1865)	Mahomedan conquest of India Dr. A Sprenger. (With a map) .....	100
(1868)	Queries regarding races of India P. Carnegie. ....	86
(1869)	Contributions to the Chronology of the reigns of Tímúr and his descendants up to Shahjehán No I. H Blochmann .....	207
(1870)	Notes on places of historical interest in the District of Húghly H Blochmann ....	109
(1871)	On the birth place of Todar Mall. M L Ferrar and H Blochmann .....	178
	A history of the Village of Aíurá, Tahsil Jágraon, zillah Lúdhianá Attar Singh .....	247
(1872)	On the birthplace of Todar Mall M. L Ferrar and H. Blochmann .....	35
	Note on Father Tieffenthaler Lieut Col. A S. Allan .....	59
	On Todar Mall's birthplace. Babu Kashináth. ....	141

Pro- ceedings	On the Kamshika Dates Hon'ble E C Bayley and Dr R Mitra. ....	45
(1875)		
(1876)	Invasion of Bengal by Kullotunga, in the time of Mahupila Dr Burnell ....	107
(1878)	On the early life of Asoka Dr Rájendralála Mitra A legend regarding the origin of the name Chháyá- pati or "lord of the Shadows," a small Taluq in Pargana Hoglí, Zillah Jessore H James Ramey	1 105
(1879)	Note on Jainism (Reprint) E Thomas ..	1
(1880)	On the Lakshmana Sena Era Dr R Mitra ..	119
(1881)	On the origin of the myth about Kerberós Dr. R, ' Mitra ..	91



# IV.

## LANGUAGE AND LITERATURE.

[Abbreviations A = Arabic D = Dravidian G = Gaudian I. A = Indo-Aryan of the N W Frontier: I C = Indo-Chinese K = Kolarian M = Malayan P = Páli Pr = Prakrit Ps = Persian S = Sanskrit T B = Tibeto-Birman]

As Res		A dissertation on the Orthography of Asiatick words in Roman letters Sir William Jones	1
Vol I (1788)	S	On the Literature of the Hindus Goverdhan Caul .....	340
II (1790)	A	On the second Classical Book of Odes of the Chinese Sir William Jones (With a Plate) .....	195
		On the Introduction of Arabic into Persian (With two Tables) .....	205
III (1792)	S & Ps	On the mystical poetry of the Persians and Hindus Sir Wilham Jones .....	165
IV (1795)	S & A	On the Philosophy of the Asiaticks The eleventh discourse, 20th Feby 1794 Sir William Jones .....	165
		On the traces of the Hindu Language and Literature, extract among the Malays William Marsden .....	221
	S	Catalogue of Indian Plants comprehending their Sanskrit and as many of their Linnean generic names as could with any degree of precision be ascertained Sir William Jones .....	229
		Specimen of the Andaman Language Lieut R H Colebrooke.....	392

As Res	D	Specimen of the language of the people inhabiting the Hills in the vicinity of Bhagalpur Major R E Roberts .. . . .	127
Vol V (1798)	T B	Observations on the Alphabetical System of the language of Ava and Aracan' Captain John Towers (With 2 Plates) .. . . .	143
	T B	A comparative Vocabulary of some of the languages spoken in the Burma empire Dr Francis Buchanan .. . . .	219
		Remarks on the names of the Cabirian Deities and on some words used in the mysteries of Eleusis Captain Francis Wilford	297
	S	The Rudhrádhyáya or sanguinary Chapter, translated from the Cálicá Purána by W C Blaquiere .. . . .	371
	.		
VI (1799)	M	Specimen of the language of the Pogy Islands John Crisp .. . . .	77
VII (1801)	T B	Specimen of the Kookie language John Macrae .. . . .	197
	S & Pr	On the Sanskrit and Prakrit languages H T Colebrooke . . . . .	199
	D	A summary account of the Life and writings of Asgar, a Tamul female philosopher Rev Dr John . . . . .	345
	Gd	A list of Gipsy and Hindustani words Captain David Richardson .. . . .	481
	.		
VIII (1805)	A	Extracts from the Tehzebul Mantik or "Essence of Logic," as a Supplement to Arabic and Persian Grammar, and an elucidation of certain points of Oriental Literature Francis Balfour .. . . .	89
	S	On the Vedas or Sacred Writings of the Hindus H T. Celebrooke .. . . .	369

As Res	M & I C	On the Language and Literature of the Indo-Chinese Nations D J Leyden . . . . .	158
Vol X (1808)	S & G	On Sanskrit and Prakrit Poetry H T Colebrooke . . . . .	389
	A.	Remarks upon the authorities of Musalman Law J H Harington . . . . .	475
	Ps.	Translations of two letters of Nadir Shah, with introductory observations General John Malcolm . . . . .	526
XI (1809)	G & S	A catalogue of Indian Medical Plants and Drugs, with their names in the Hindustani and Sanskrit languages. Dr John Fleming . . . . .	153
XII (1810)	M	On the Maláyu nation, with a translation of its maritime Institutions. Thomas Raffles. . . . .	102
XIV (1822)	S.	Account of a discovery of a modern imitation of the Vedas, with remarks on the genuine works Francis Ellis . . . . .	1
XVI (1828)	T. B	Notice of the Language, Literature and Religion of the Baudddhas of Nepál and Bhot (Tibet) B. H Hodgson. (With 3 Plates) . . . . .	409
	T B.	Notice of three Tracts received from Nepal. Horace Hayman Wilson, (With 3 Plates) . . . . .	450
XX (1836-39)	T B	Analysis of the Dulva, a portion of the Tibetan work entitled the Kah-Gyur Alexander Csoma Korosi. . . . .	41
	S	Essay on Sanscrit alliteration Rev. William Yates . . . . .	135
	T. B	Notices of the Life of Shákya, extracted from the Tibetan Authorities Alexander Csoma Korosi. . . . .	285

<p>As Res</p> <p>Vol XX 1836-39</p>	<p>S</p> <p>I C</p> <p>T B</p>	<p>Review of the Naishadha Charita, or adventures of Nāla Rájá of Nishadha, a Sanscrit poem, by Śrī Harshā of Cashmī, with a commentary by Prema Chandra, published by the Asiatic Society, 1836 Rev William Yates ..... 318</p> <p>On Siamese Literature Captain James Low 338</p> <p>Analysis of the Sher-Chin-Phal-Chhen-Dkon Seks-Do De-Nyáng Dás and Gyut Being the second Division of the Tibetan work, entitled the Kah-Gyur Alexander Csoma Kőrös . . . . . 393</p> <p>Abstract of the Contents of the Bstan Hgyur Alexander Csoma Kőrös. .... 553</p>
<p>Journal</p> <p>Vol I (1832)</p>	<p>T B.</p> <p>S</p> <p>S</p> <p>T B</p> <p>T B</p> <p>S</p> <p>S</p>	<p>Abstract of the Contents of the Dulva, or first portion of the Kah-Gyur, from the Analysis of Mr Alexander Csoma de Kőrös H H Wilson ..... 1</p> <p>Analysis of the Purānas Agni Purāna H H Wilson ..... 81</p> <p>On the poetry of Madagascar Rev W Baker .. . . . 86</p> <p>Analysis of the Purānas, the Brahma Vairartta Purāna H H Wilson .... 217</p> <p>Translation of a Tibetan fragment by Mr Csoma de Kőrös, with remarks by H H Wilson (With Text) ..... 269</p> <p>Analysis of the Kahgyur H H Wilson 375</p> <p>Analysis of the Vishnu Purana H H Wilson .. . . . 431</p> <p>Analysis of the Vayu Purāna H H Wilson 535</p>
<p>II (1833)</p>	<p>T. B</p> <p>S.</p> <p>T B</p>	<p>Translation of a Tibetan Passport, dated A D 1658 Alexander Csoma de Kőrös 201</p> <p>The birth of Umá, a legend of Himálaya, by Calidasa .... . 329</p> <p>Origin of the Shákyā race translated from the La or, the 26th volume of the mDo class in the Kágyur, commencing on the 161st leaf Alexander Csoma de Kőrös. . . 385</p>

Journal	Ps	Specimens of some ornamental forms of Persian writing Mahārāja Kāh Kishen Bahādūr (With a Plate) . . . . .	613
Vol II (1833)			
III. (1834)	S & T B	Professor Schlegel's Enigma Mode of expressing numerals in the Sanskrit and Tibetan languages . . . . .	1
	T. B	Extracts from Tibetan works, translated by Alexander Csoma de Kőrös . . . . .	57
		On the adaptation of the Roman Alphabet to the Orthography of Oriental Languages (With a Plate) . . . . .	291
	A	Roman orthography of Oriental words . . .	413
		Extracts from the Mohit, that is, the Ocean, a Turkish work on Navigation in the Indian Seas Translated by the Baron Joseph von Hammer . . . . .	515
"	T B	Tibetan Grammar and Dictionary of M. Csoma de Kőrös . . . . .	653
IV (1835)	T B	Analysis of a Tibetan work Alexander Csoma de Kőrös . . . . .	1
V (1836)	A	Extracts from the Mobit (the Ocean), a Turkish work on Navigation in the Indian Seas Joseph von Hammer. (continued)	141
VI (1837)	I C	Alphabets of the Tai language Rev N Brown (With 3 Plates) . . . . .	17
	A.	Remarks on M Schlegel's objections to the restored edition of the Alf Laila, or Arabian Night's entertainments. Henry Torrens . . . . .	161
	G	A Grammar of the Sindhi language W. H Wathen (With a Plate) . . . . .	347
	G	Translation of one of the Granthas, or sacred books, of the Dadu-panthi sect Ind. G R. Siddons . . . . .	750, 150

Journal	S	Note on the primary language of the Buddhist writings B H. Hodgson . . . .	682
Vol VI (1837)	A	Note on the above James Prinsep ..	686
	A	Extracts from the Mohit (the Ocean), a Turkish work on Navigation in the Indian Seas Translated by Joseph von Hammer. (continued) . . . . .	805
	S.	Discovery of the Rekhi Ganta, a translation of the Elements of Euclid into Sanskrit by Samrat Jagannatha under the orders of Rája Siwái Jaya Singha of Jaipur Lancelot Wilkinson (With a Plate) .....	938
	I C	Interpretation of an Ahom extract Major F Jenkins .....	980
	I C	Comparison of the Indo-Chinese languages Rev N Brown . . . . .	1023
VII (1838)	I C	Remarks on "a comparison of Indo-Chinese languages, etc" Rev. W Morton ....	56
	S & D	Examination and Analysis of the Mackenzie Manuscripts deposited in the Madras College library Rev William Taylor .	173, 105
	T B	Enumeration of Historical and Grammatical works to be met with in Tibet Alexander Csoma Korösi . . . . .	147
	S	On the ancient Sanskrit Numerals James Prinsep (With a Plate) .....	348
	I A	On the Siah Posh Kafirs with specimens of their language and costume Captain Alexander Burnes . . . . .	325
	S & D	Second Report on the Examination and Restoration of the Mackenzie Manuscripts Rev William Taylor .....	371, 469
	I A	Epitome of the Grammars of Brahui, the Balochky and the Panjabi languages, with Vocabularies of the Baraky, the Pashy, the Laghmani, the Cashgari, the Teeshai and the Deer dialects Lieut R Leech.	780, 711, 608, 538
		Comparison of Asiatic Languages .....	707

Journal Vol VII (1838)	A	Extracts from the Mohit (the Ocean), a Turkish work on navigation in the Indian Seas Translated by Joseph von Hammer. 767
VIII (1839)	I A S S	A grammar of the Pashtú or Afghaní Language Lieutenant Leech. .... 1 Sisupála Badha or death of Sisupála by Magha Translated, with annotations, by J C C Sutherland ..... 16 The Mahamnástava, or a Hymn to Shiva; with an English translation Rev K M Banerji ..... 355
IX Part I (1840) Part II	T B T B K. K.	Note on the Lepchas of Sikkim, with a Vocabulary of their language A Campbell ..... 379 Limboo Vocabulary A Campbell ..... 605 Grammatical construction of the Ho Language Lieut Tickell ..... 997 Vocabulary of the Ho Language. Lieut Tickell ..... 1063
X Part II (1841)	T B. G	Comparison of the languages spoken in Arakan and in the Hill Districts adjoining Lieut Phayre. .... 711 Grammar and Vocabulary of the Cashmiri language M P. Edgeworth..... 1038
XI. Part I. (1842) Part II	T B S	A Vocabulary of the Koonawur languages . 479 The avatars of Vishnu An abstract translation from the Padma Purána E C Ravenshaw ..... 1112
XII. Part I. (1843)	G. S.	A Vocabulary of the Scindee language Capt. J. B Eastwick. .... 1 Translation of the Naipaha Devata Kalyana, with notes B H Hodgson. .... 400

Journal	A	As-Suyúti's work on Earthquakes Transl by A Sprenger . . . . .	741
Vol XII Part I. (1843)		M Stanislas Julien on the study of the Chinese language. Transl by H Pid- dington . . . . .	816
		Tables of comparative philology, shewing specimens of the affinity of the Greek, Latin and English languages with the Sanskrit, Persian, Russian, Gaelic, Welsh, Lithuanian, German, Hebrew and Anglo- Saxon Rev James Long . . . . .	837
	G	Notes on, and a short Vocabulary of, the Hin- duví Dialect of Bundelkhand Major R Leech . . . . .	1086
XIII Part I (1844)	K	Vocabulary of Gond and Cole words From Dr Voysey's Manuscripts. . . . .	19
	S	Bhāscarāe Acharyae Siddhānta Shiromani sic dicti operis pars tertia, Gunitadhiān sive astronomiam continens, latine vertit, no- tasque adiecit E Roer . . . . .	53
	G	A Grammar of the Cashmeeree language Major R Leech . . . . .	553, 397
Part II	A	Some original passages on the early com- mence of the Arabs Dr A Sprenger . . . . .	519
	A	Notice of the Ajāib ul Makhlúqāt Cupt Newbold . . . . .	632
XIV Part I (1845)	A	Translation of the Taufat ul Kiram, a His- tory of Sindh Lieut Postans . . . . .	155, 75
	S	Vedānta Sāra, or Essence of the Vedanta, an introduction to the Vedanta Philosophy by Sādānanda Parivrajakācharya Translated by E Roer . . . . .	100
	S	Note on the course of study pursued by Stu- dents in the Sanskrit College, Calcutta W Seton-Karr . . . . .	135
Part II.		On the invention of the Armenian Alphabet Johannes Ardaill . . . . .	522



Journal	M	A notice of the Alphabet of the Philippine Islands, by Don Simbaldo de Mas Translated by H Piddington (With a Plate)	603
Vol. XIV.	P	Review of L'hистoire du Buddhism Indien, par E Burnouf Dr E Roer	783
Part II. (1845)	S.	On the genuine character of the Horá Sástra, as regards the use of Greek terms J Muir . . . . .	809
XV (1846)	T B	Comparative vocabulary of languages of Hill tribes in Aikan Lieut T Latter. ....	66
	M	Small vocabulary of the Nancowry Language Rev. P. Barbe .....	366
XVI Part I (1847)	S	Bhášhá Parichheda or Division of Language A logical treatise Translated by Dr. E. Roer .....	157
	K.	Specimen of the language of the Goonds, in the District of Seonee, Chupiah, comprising a Vocabulary, Grammar, etc. Dr O. Manger . . . . .	286
	A.	Hints to students of Arabic Col Lockett	373
	S.	Report on the Vedas . . . . .	505
	S	Literature and History of the Vedas Three treatises by Dr R Roth . . . . .	812
	S	Prashnottaramalá or Catechetical Dialogue of Sook Translated by J Christian. .	1228
	T B	Comparative Vocabulary of Sub-Himaláyan dialects B H Hodgson .. .	1245
XVII Part I (1848)	S	The most ancient Grammar of the Vedas or the Prátisákhya Sûtra Dr R Roth ...	6
		Library at Jessalmere A Sutherland	158
	A.	Notices of some copies of the Arabic work entitled Rasayil Ikhwán us Safá Dr A Sprenger Communicated by H M Elliott . . . . .	501
	G	Hindi and Urdú Tazkiras F Edward Hall	511
	I C	Khas language B H Hodgson .	547

Journal	A	Notice of the Ikhwán us Safá Dr A Sprenger Communicated by H M Elliott (Continued) ..	183
Vol XVII	A	Bal'amy's translation of the History of Tabary, and Ghazzály's History of the prophets Dr A Sprenger	437
Part II (1818)	D & K	Comparative Vocabulary of the aboriginal languages of Central India B H Hodgson . . . . .	553
	T B	Vocabulary of the language of Chepáng B H Hodgson . . . . .	655
	A	A passage from Ibn Qot'ybah's Adab ul Kátib on Arabic Astronomy Dr A Sprenger Communicated by H M Elliott ...	659
XVIII		Notice of a Chinese Geographical work J W Laidlay.	137
Part I (1819)	T B	Notes on the languages spoken by the various tribes inhabiting the Valley of Assam and its mountain confines William Robinson .. ..	183, 310
	R	Aborigines of Southern India B H Hodgson . . . . .	350
	T B	On the Aborigines of North Eastern India B H Hodgson . . . . .	451
		Notes by M Johannes Ardyll, on the extracts proposed from the work of Moses Khorensis . . . . .	588
Part II	T B	On the Aborigines of the Eastern Frontier B H Hodgson .. ..	967
XIX (1850)	A .	Notice of a copy of the fourth volume of the original text of Tabary Dr A Sprenger Communicated by Sir Henry Elliot ..	108
	T B & I C	Aborigines of the North East Frontier B H Hodgson . . . . .	309
	G & D G	Aborigines of the South B H Hodgson	461
		Translation of the "Vichitra Nátaḥ" or "beautiful Epitome," a fragment of the Sikh Granth, entitled "the Book of the tenth Pontiff" Capt G Siddons ...	521

Journal	G	Analysis of the Bengali poem Rajmálá, or Chronicles of Tripurá. Rev. James Long.	533
Vol XIX. (1850)			
XX. (1851.)	A.	Observations on the physiology of the Arabic language Dr A Sprenger. (With a Table) ... ..	115
	T B	Notes on the Dophlás and the peculiarities of their language William Robinson	126
	A	The initial letters of the nineteenth Súrah of the Qoran D A Sprenger. . . .	280
	G	Translation of the Vichitra Nátrak. Captain Siddons . . . .	487, 314
	A	On the earliest biography of Muhammad Dr A Sprenger . . . .	395
	S	Review of a lecture on the Sankhyá Philo- sophy, embracing the text of the Tattwa Samása, by J R Ballantyne Dr. E Roer. . . . .	397
	Ps	The Zafainámah, a dialogue between Ais- totle and Buzurjumíhr. Transl by Babu Narasinha Datta . . . . .	426
	S.	Comparative list of Upanishads E Roer and Walter Elliott . . . . .	607
XXI (1852.)	G	A Tale by Inshá Allah Khan Translated by L Clint ... ..	1
	G.	On the connection of the Dative and Accu- sative cases in Bengali and Hindustani. Rev W Kay ..	105
	A	Foreign words occurring in the Qoran Dr A Sprenger . . . .	109
	T B	Vocabulary of the Heuma or "Shendoos" language in Arakan Capt S R Tickell	212
	S	Analysis of the Raghu Vansa, a Sanskrit poem of Kalidása Rev J Long . . .	445
	G	Has Sády of Shnúáz written Rekhtah verses? Dr A Sprenger . . . .	513
	A.	Muhammad's Journey to Syria and Professor Fleischer's opinion thereon Dr A Sprenger ..... .	576

Journal	I C & T B	On the Indo-Chinese Borderers and their connexion with the Himalayans and Tibetans ..	1
Vol XXII (1853)	T B	On the Mongolian affinities of the Caucasians B H Hodgson ..	26
	T B	Sifán and Horsok Vocabularies, with another special exposition in the wide range of Mongolian affinities and remarks on the lingual and physical characteristics of the family B H Hodgson (With a Plate)	121
	A	The first volume of the original text of Tibary Dr A. Sprenger ...	195
	G	Early Hindustani poetry Dr A Sprenger	442
	A	Catalogues of Oriental libraries Dr A Sprenger .. . . .	535
XXIII (1854)	A	List of Arabic works preserved in a library at Aleppo, communicated by Captain Macleagan .. . . .	44
	G	On the Ballads and legends of the Panjab Rifacimento of the legends of Russáloo Major J Abbott .. . . .	123
		Manuscripts of the late Sir H Ellott Dr A Sprenger .... .	225
	I A	Some remarks on the origin of the Afghan people and dialect and on the connection of the Pushto language with the Zend and Pehlevi and the Hebrew Lieut H G Raverty . . . . .	550
	P	On the peculiarities of the Gáthá dialect Babu Rajendralála Mitra .... .	604
XXIV (1855)	S	Bibliographical notes on the published Upanishads with suggestions upon the publication of those which remain unedited E Roer .. . . .	38
	G	A tale by Inshá Allah Khan Translated by the Rev S Slater (Continued.)	79
	T. B	A brief notice of the Subháshtá Ratna Nidhi of Sashya Pandita, with extracts and translations by M A Csoma de Kőrös .....	141

Journal	T. B.	Note on the Lamboo Alphabet of the Sikkim Himalaya Dr A. Campbell (With a Plate) .....	202
Vol XXIV (1855)	T B	Notes on the languages spoken by the Mishmis W Robinson .....	307
	S	Ancient Indian Numerals Edward Thomas (With 2 Plates).....	551
	T B.	Comparative vocabulary of some of the various languages spoken on the Eastern frontier of Bengal Lieut R Stewart ..	658
XXV. (1856)	D.	Aborigines of the Nilgiris B H. Hodgson (With a Plate) ... ..	498, 31
	D.	Aborigines of the Eastern Gháts B H Hodgson .....	39
	A.	Notes on Alfred von Kriemer's edition of Wakidy's campaigns Dr A Sprenger	199, 53
	A	Notice on the earliest work on Sufism as yet discovered, and on an Arabic Translation of a work ascribed to Enoch Dr A. Sprenger. ....	133
	T B	A slight notice of the Grammar of the Thadon or new Kookie language. Lieut R Stewart .. ..	178
	B.	A brief notice of the Subháshta Ratna Nidhi of Sashya Pandita, with extracts and translations by the late M A Csoma de Kőrös .....	257
	D	Vocabulary of the Juanga language Lieut. R Stewart .....	302
	A	On the origin and progress of writing down historical facts among the Muslims Dr A Sprenger .....	303, 375
XXVI. (1857)	T B	Comparative vocabulary of the languages of the broken tribes of Nepal .....	317
	T B	Comparative vocabulary of the Kiranti dialects B H Hodgson .....	350
	T B	Vocabulary of the Vayu language B H. Hodgson .....	372

Journal	T B	Grammar of the Vayu language B H. Hodgson . . . . . 429
Vol XXVI (1857)		Vocabulary of the Bahing language B H Hodgson . . . . . 486
XXVII (1858)	T B	Notes on the Karen languages Francis Mason . . . . . 129
	S	A few remarks on the first fasciculus of Professor Wilson's Sanskrit Dictionary, as "extended and improved" by Dr Gold- stücker Fitz-Edward Hall . . . . . 301
	T B	Comparative vocabulary of the languages of the broken tribes of Nepal B H Hodgson . . . . . 393
XXVIII (1859)	S	Fragments of three early Hindu dramatists Bhica, Rāmula and Somila Fitz-Edward Hall . . . . . 28
		Memorandum on Education in China drawn up from information afforded by the Ex- imperial Commissioner, Yeh C Alabaster 48
	S	The Sri-Sukta on Litany to Fortune, text and commentary, with translation Fitz- Edward Hall . . . . . 121
		On the introduction of writing into India Professor Max Müller . . . . . 136
	S	Notices of new works relating to Sanskrit Literature . . . . . 501
XXIX (1860)	Ps	On certain mediæval apologues E B Cowell . . . . . 10
	S	On a passage in the tenth Book of the Sāhi- tya Darpaṇa E B Cowell . . . . . 217
	P	The Kīrān-us-Sadain of Mu Khusrau E B Cowell . . . . . 225
	I A	Is the Pushto a Semitic language? Rev Isidor Loewenthal . . . . . 323

Journal	S	Notices of new works relating to Sanskrit Literature Mánava Kalpa Sūtra .....	42
Vol XXX (1861)	S	Indian Idylls, No 1 R T H Griffith ..	111
	Ps.	Gyges' ring in Plato and Nizámi E B Cowell .....	157
XXXI (1862)	S	Rávana's commentary on the Rig Veda. Di Fitz-Edward Hall .....	129
	S	Notice of the Kumára Sambhava, 8th Canto	203
	S.	The Cháiváka System of Philosophy. E B Cowell ....	371
	S	Notice of the Bhámini Vilása. ....	527
XXXII (1863)	S	On ancient Sanskrit numerals. Di Bhau Daji .....	160
XXXIII (1864)	I A	On the language of the Siabposh Kafirs, with a short list of words, to which are added specimens of Kohistan and other dialects spoken on the northern border of Afghanistan, etc Captain H. G Raveity	267
		On the application of the character of the Roman Alphabet to Oriental Languages. Capt W Nassau Lees .....	315
	G.	On the origin of the Hindui language and its relation to the Urdú dialect. Babu Rájendralála Mitra .....	489
XXXIV (1865.)	T B	Note on the pronunciation of the Tibetan Language Rev H A. Jaeschke .	91
XXXV. (1866)	G.	Outlines of a plea for the Arabic element in official Hindustani J Beames .....	1
	S	A translation of the chapter on ordeals from the Vyavahara Mayúkhya Professor George Buhler . . . . .	11
		Manuscripts in the Grantha characters Dr. R Rost .. . . . .	60

Journal	A	Remarks on Barbier de Maynard's edition of Ibn Khordádbéh and on the land-tax of the empire of the Khalyfs Dr A Sprenger .. .	124
Vol XXXV (1866)	S.	A notice of the Saunaka Smṛiti Professor George Buhler .	149
	G.	Some objections to the modern style of official Hindustani F S Growse .. .	172
	G & T B	A vocabulary of English, Balti and Kashmiri H H Godwin-Austen ... .	233
XXXVI (1861)	G	On the transliteration of Indian Alphabets in Roman characters F S Growse ..	136
	S	On the Arabic Element in official Hindustani J Bernes . ..	145
	S	Certain Sanskrit Manuscripts on Geography of which no notice has been met with since the time Colonel Wilford .....	176
XXXVII (1868)	Ps	Contributions to Persian Lexicography H Blochmann .....	1
	G	The poems of Chand Bardái F S Growse	119
		Authors of Armenian Grammars from the earliest stages of Armenian Literature up to the present day J Avdall . . . .	135
XXXVIII (1869)	G	Further notes on the Prithuáj Rásau F S Growse .. .	1
	T B	A vocabulary of the Garo and Koneh dialects	14
	Ps	Badaoni and his works H Blochmann .	105
	G	The nineteenth book of the Gestes of Prithuáj, by Chand Bardái, entitled "the Marriage with Padmavati," literally translated from the old Hindi John Bernes ..	145
	G	Translations from Chand F S Growse ..	161
	G	Reply to Mr Growse . . .	170
	Ps	Translations from the Táríkh-i-Farúz Shahi Major A R Fuller Communicated by T W. H Tolboit . . .	181



Journal.	Ps.	Translations from the Tārīkh-i-Firūz Shāhī.	
Vol XXXIX (1870)	G	Major A R. Fuller .. . . .	1
	G	Rejoinder to Mr Beames F S. Growse	52
	G	Kashmir test words W. J Elmslie .	95
	D	Gondi Words and Phrases Rev James Dawson. . . . .	108, 172
	G & P <sub>1</sub>	Contributions towards Vernacular Lexicography. Babu Pratapa Chandra Ghosha .	131
XL (1871)	K.	An introduction to the Mundārī language. Rakhal Das Halldar .. . . .	46
	K & D	Names of Birds, etc in four of the aboriginal languages of Western Bengal V Ball .	103
	S	The Alla Upanishad, a spurious chapter of the Atharva Veda Text, translation and notes Rajendralāla Mitra . . . . .	170
	Ps	Translations from the Tārīkh-i-Firūz Shāhī P Walley and A Colvin. . . . .	185, 217
XLI (1872)	M.	List of words of the Nicobar languages as spoken at Camorta, Nancowry, Trinkutt and Katschal E H Man .....	1
	T B	Specimen of a Naga Vocabulary S E Peal	29
	G	Translations of selected portions of Book I of Chand Bardai's Epic John Beames	42
	G & Pr	Essays in aid of a Comparative Grammar of the Gaurian languages Dr A F Rudolf Hoernle .. . . .	120
	G	List of books contained in Chand's poem, the Prithirāja Rāso John Beames .....	204
XLII. (1873)	G & Pr	Essays in aid of a Comparative Grammar of the Gaurian languages Dr A F Rudolf Hoernle .....	59
	G.	Studies in the Grammar of Chand Bardai John Beames .....	165
	G	A metrical version of the opening stanzas of Chand's Prithirāj Rāsau F S. Growse.	329

Journal	T B	A rough comparative vocabulary of some of the dialects spoken in the Naga Hills Capt'n J Butler (Appendix).... . I
Vol XLII (1873)	T B	Vocabulary of the Banpailá Nágas S E Perl Appendix .... . XXX
XLIII (1874)	G & Pr	Essays in aid of a Comparative Grammar of the Gaurian languages No V Dr A F Rudolf Hoeinle ..... . 22
	A	Translation of an Arabic pamphlet on the Wahhábis J O'Kinealy . . . . . 68
	A.	Translation of the Arabic Annales of 'Oman E C Ross . . . . . 111
	Ps	Persian texts of the Risalah-ush-Sháhádá .. 222
	G & Pr	The Etymology of local names in Northern India, as exemplified in the District of Mithurá. F S Growse ... . . 324
XLIV (1875)	P	Páli Studies No 1, Analysis and Text of the Subodhálankára or "easy Rhetoric" by Singharakhita Thera Maj G F Fryer 91
	S	Translation of the Ayodhya Mahatmya or Pilgrimage of Ayodhya Ram Naráyan .. 130
	T B	Notes on Manipuri Grammar G H Damant ..... . 173
	G	The Rhapsodies of Gambhír Rái, the bard of Núrpur, A D 1650 John Beames .. . 192
	T B	A rough comparative Vocabulary of two more of the dialects spoken in the "Nágá Hills" Compiled by Capt'n John Butler 216
	S	On the Sulva sūtrís Dr G Thibaut (With 4 Plates) .. . . . 227
	T. B	Rough notes on the Angami Nagás and their language (With 7 Plates) .. . . 307
	G	Popular songs of the Hamirpur District in Bundelkhand Vincent A Smith . . . 389
XLV (1876)	G	The prologue to the Rámáyana of Tulsí Dás A specimen translation F S Growse .. 1

Journal	I A	On the Ghalehah languages, Wakhí and Sari-kolí R B Shaw .. .
---------	-----	--

Journal	I A	Some Grammatical forms of the Dird dialects spoken by Brokpis of Dâh-Hanu and of Dris R B Shaw . . . . .	38
Vol XLVII (1878)	G	The song of Mânik Chandra. G A Grierson . . . . .	135
	T B	The Lokamti, translated from the Burmese Paraphrase Lieut R C Temple . . . . .	239
Extra-Number		Sketch of the Turki language, as spoken in Eastern Turkistan Vocabulary R B Shaw . . . . .	
XLVIII (1879)	G	Hamir Risa, or a History of Hamir, prince of Rithambar Translated from the Hindî Bibu Bryantha Bindyopadhyaya . . . . .	186
	P & T B	Pali Derivations in Burmese H L St Barbe . . . . .	253
	T B	A peculiarity of the River names in Asâm and some of the adjoining countries . . . . .	258
XLIX (1880)	G	A collection of Hindi Roots, with remarks on their Derivation and Classification Dr A I Rudolf Hoernle (With an Appendix Index) . . . . .	53
Extra-Number	Pr I A	On the Surva Pragnapti Dr G Thibaut 107, 181 Sketch of the Northern Balochi Grammar, Vocabulary and Specimens of the language M Longworth James . . . . .	107, 181
L (1881)	A	Translations from the Hamîseh C J. Lyall . . . . .	107
LI (1882)	G	Manbodh's Haribans G A Grierson . . . . .	129
	G	Some Hindu folksongs from the Panjâb. Lieut R C Temple . . . . .	151
Extra-Number	G	Introduction to the Maithilî of North Bihar Grammar, Chrestomathy and Vocabulary G A Grierson . . . . .	

Journal	G.	Folklore from Eastern Garokapur. Hugh Fraser. ....	1
Vol. LII. (1883)	G.	Notes on dialective peculiarities in the above. G. A. Grierson. ....	20
	G.	Folktales from the Upper Panjāb Rev C Swynnerton. . . . .	81
	G.	Essays on Bihārī Declension and Conjugation. G. A. Grierson. ....	119
	G.	Note on the preceding Essay. Dr. A. F. Rudolf Hoernle. ....	159
	S	On Garokaputra and Garokāya, as names of Patanjali. Dr. Rājendralāla Mitra. ....	261
Proceedings. (1865.)	T B	Tibetan Publications. Dr. H. Cleghorn and Rev. H. A. Jäsenke. ....	12
	S. & A.	Apparent community of Amen and Om. Dr. R. Mitra and H. Blochmann. ....	46
	Ps.	Note on the Iqbāl Nāmāh-i-Jahāngīrī and other authorities for the history of the reign of the emperor Jahāngīr. Captain W. N. Lees. ....	114
		Indian Palæography. H. Blochmann. ....	171
(1863)	G & I A	Aryan languages spoken in the territories of the Mahārāja of Cashmere Hon'ble G. Campbell. ....	46, 62
	S & A.	Apparent community of Amen and Om. J Beames and H. Blochmann. ....	192, 203
(1867.)		On the derivation of Aryan alphabets. E Thomas R. Mitra. E. C. Bayley. ....	51
		The tales of Nudda. E B Correll. ....	87
(1868.)	S	Note on a Manuscript English translation of the Mahābhārata belonging to the Society. Rājendralāla Mitra. ....	43
	G	On an edition of the Prithvirāj Rāsau of Chand Bardāi. F. S. Growse. Rev J Long. J. Beames and others. ....	242, 63

Pro- ceedings (1868 )	A	Notes on an Arabic history of the Panthays, with translation, Maulvi Abdul Latif ..	142
	G Ps.	Manuscripts of the poems of Chand 63, 165, 242 Notes on the poems of Prince A'zamuddín, a grandson of Tipú Sultan, and on three other Persian poets, known under the name of Sultán H Blochmann .....	220
(1869 )	Ps	A magnificent Persian Manuscript of the Khiradnámah-i-Sikandari, with autographs of Jahángir and Sháhjehán, belonging to Babu Pratapa Chandra Ghosa. H Blochmann .. . . .	190
(1870 )	Ps	Note on a Persian manuscript entitled Mir-át-ul-Quds, a life of Christ, compiled at the request of the Emperor Akbar by Jerome Xavier H Blochmann . . . . .	138
		A short list of Andamanese test words F A de Roepstorff .. . . .	178
	G	On the relation of the Uriyá to the other modern Aryan languages John Beames With remarks by Babu Rájendralala Mitra	112
	S	Notes on the Charaka Sanhitá Dr Mahendralal Sircar .....	284
(1871 )	G	On a Hindí work on Kharakpúr Babu Rash Bihári Bose .. . . .	98
	Ps	Observations on a Persian manuscript on the lives of the twelve apostles, by Jerome Xavier H Blochmann .....	138
(1872 )	G	The Rhapsodies of Gambhír Rai, the Bard of Núpur. (A D 1650) J Beames	156
	G	On the term "Gaurian" as a name for the Sanskrit Vernaculars of North India Dr A F Rudolf Hoernle and Babu Rájendralála Mitra . . . .	177

Pro- ceedings	G	On an edition of the Prithirāj Rāsau of Chand Bardái .....	122
(1873)			
(1874.)	S.	Sanskrit manuscripts in Jesalmír Dr G Buhler .....	93
(1875)	T. B.	On the Manipuri Alphabet. G H Damant (With a Plate) .....	17
	S.	Report on Sanskrit manuscripts. Dr Rájēn- dralála Mitra . . . . .	63
	Ps	A Persian manuscript on the buildings in Agra in Akbar's time T. W Beale ....	117
(1877.)	S.	On the Non-Aryan languages of India. (Reprint) R N Cust. ....	6
		Catalogue of Sanskrit Manuscripts in the Society's Library. Dr. R Mitra . . . .	183
(1878.)	G Pr	Rangpurí genitive in <i>kere</i> G A Grierson A new Prákrit grammar, by Chanda Dr. A F. Rudolf Hoernle ... ..	64 178
(1879)	G	On Drishṭa Kúṭa of Sur Dás. Babu Harish Chandra .....	5
	P.	Note on the Rúpa Siddhi. Lieut Col G E Fryer. ....	155
(1881)	S	Note on a Manuscript of the Bhaṭṭi Kavya Dr R Mitra (With a Plate) ... ..	134
(1882)	P.	On the Páli Grammarian Kachcháyana Lieut Col G E Fryer ... ..	116
	P	Remarks on the above Dr A F Rudolf Hoernle . . . . .	125
(1883.)	A.	On Tenses in Arabic George Hughes ....	129

V.

RELIGION, MANNERS AND CUSTOMS, ETC.

[*N B* —The entries marked with (\*) are partly philological,  
those marked with (†) partly historical]

As Res	Account of an Interview with Teeshoo Lama at the Monastery of Terpaling Samuel Turner . . . .	199
Vol I (1788)	On the gods of Greece, Italy and India Sir Wil- ham Jones (With 14 Plates) . . . . .	221
	On the Sikhs and their College at Patna Charles Wilkins . . . . .	288
	On the Viná or Indian Lyre Francis Fowke (With a Plate) . . . . .	295
	On the Trial by Ordeal among the Hindus Ali Ibrahim Khan. Communicated by Warren Hast- ings . . . . .	389
	History, Science and Art of Asia The second anni- versary discourse Sir William Jones . . .	405
	On the Hindus The third anniversary discourse Sir William Jones . . . . .	415
II (1790)	Remarks on the Island of Hinzuán or Johanna Sir William Jones . . . . .	77
	On the Indian Game of Chess Sir William Jones	159
	A description of Assam by Muhammad Cazim, transl by Henry Vansittart . . . . .	171
	On two Hindu Festivals (of Bhavání and Húli) and the Indian Sphinx Colonel Pearse . . . . .	333
III (1792)	On the musical modes of the Hindus Sir William Jones (With 2 Plates) . . . . .	55



As Res.	Discourse delivered by Sir John Shore, 22nd May 1794 .....	181
Vol IV. (1795.)	On the duties of a faithful Hindu Widow Henry Colebrooke .. .. .	209
	On some extraordinary facts, customs and practices of the Hindus. Sir John Shore .....	331
V (1798)	Historical Remarks on the coast of Malabar with some descriptions of the manners of its inhabitants	1
	An account of two Fakeers, with their portraits Jonathan Duncan (With 2 Plates)....	37
	Enumeration of Indian classes H T Colebrooke.	53
	On the religious ceremonies of the Hindus and of the Brahmins specially H T Colebrooke .....	315
VI (1799)	On the religion and literature of the Burmas Dr. Francis Buchanan .....	163
VII (1801)	On Singhala or Ceylon, and the Doctrines of Buddha from the Books of the Singhalais. Captain Mahony .....	32
	On the religious ceremonies of the Hindus and of the Brahmins generally, Essay II H T Colebrooke. ....	232
	Ditto, Essay III. ....	288
	On the origin and peculiar tenets of certain Muham- madan sects H T Colebrooke .....	338
	Account of the S Thome Christians on the coast of Malabar. F Wrede .....	361
	Account of an hereditary living deity at Pooni Captain Edward Moore .....	393
	On the Religion and Manners of the people of Ceylon by Mr Joinville .....	399
	On the Burma game of Chess, compared with the Indian, Chinese and Persian game of the same denomination. Captain Hiram Cox .....	146
VIII (1805)	On the origin of the Hindu Religion J D. Patter- son (With a Plate) .....	41

As Rec	Account of the Jains, collected from a priest of the Sect Transl by Cavally Boria, Brahmen, for Major C Mackenzie (With 1 Plates) . . . . .	214
Vol IX (1807)	Observations on the sect of Jains II T Colebrooke On the Gimmis or Musical Scales of the Hindus J D Patterson . . . . .	287 416
λ. (1808.)	Remarks on the state of Agriculture in the district of Dinajpur. W Carey (With a Plate) . . . . .	1
XI (1810)	Sketch of the Sikhs Brigadier General Malcolm .. On the Roshunah sect, and its founder Bayezid Ansari Dr J Leyden . . . . .	197 363
XII (1816)	An account of the funeral ceremonies of a Burman Priest Dr Wm Carey . . . . .	186
XIII (1820)	On the existence of the Hindu Religion in the Island of Bali John Crawford . . . . . Of the Murderers, called Phansigars Dr Sherwood Commenced by Colonel McKenzie . . . . . Observations regarding Badheks and Thegs John Shakespear . . . . . Ceremonies at the coronation of a Hindu Rájá Mr Brown .. . . .	128 250 282 311
XV. (1825)	Snake worship in Cashmir H H Wilson .. . Of the Buddha Religion in Cashmir H H Wilson	94 110
XVI (1828)	A sketch of the religious sects of the Hindus Horace Hayman Wilson . . . . . Notice of the language, literature and religion of the Bauddhas of Nepal and Bhat (or Tibet) B H Hodgson. (With 3 Plates) .. . . .	1 409
XVII (1832)	Sketch of the Religious Sects of the Hindus Horace Hayman Wilson . . . . .	169

<p>As Res</p> <hr/> <p>Vol XX (1836-39)</p>	<p>On the administration of Justice in Nepal, with some account of the several courts, extent of their jurisdiction, and modes of procedure B H Hodgson. .... 94</p> <p>On the Government of Siam. Captain James Low 245</p>
<p>Journal Vol I (1832)</p>	<p>Notice of the peculiar tenets held by the followers of Syed Ahmed, taken chiefly from the "Sirat ul Mustaqim," a principal treatise of that sect, written, by Maulavi Muhammad Ismail ..... 479</p>
<p>II (1833)</p>	<p>Note on the origin of the Kala-Chakra and Adibuddha systems. Alexander Csoma de Kōros. (With a Plate of text) ..... 57</p> <p>A short account of the Charak Pújá ceremonies, and description of the implements used Ram Comul Sen ..... 609</p>
<p>III (1834)</p>	<p>Memoir on the Usbek State of Kokan, properly called Khokend (the ancient Feighana) in Central Asia W H Wathen ..... 369</p> <p>European speculations on Buddhism B H. Hodgson .... 382</p> <p>Further remarks on M Remusat's Review of Buddhism B H Hodgson ..... 425</p> <p>Remarks on M. Remusat's Review of Buddhism .... 499</p>
<p>IV (1835)</p>	<p>Some account of a sect of Hindu Schismatics in Western India calling themselves Rámsanebí or Friends of God. Captain G E Westmacott .... 65</p> <p>Sketch of the four Menáŋkábowe States, in the interior of the Malayan Peninsula, Lieutenant J T Newbold (With a Plate) ..... 241</p> <p>Memoir on Chinese Tartary and Khoten W H Wathen. .... 653</p>

Journal	Annotations from original Sanscrit authorities in proof and illustration of Mr Hodgson's sketch of Buddhism B H Hodgson . . . . .	28, 71
Vol. V (1836)	Notice of a visit to the valley of Cashmir Baron Hugel ... . . . . . Outline of the Political and Commercial Relations with the Native States on the Eastern and Western Coasts, Malay Peninsula Lieut T J Newbold	184 626
VI (1837)	Translation of a Servitude bond, granted by a Cultivator over his family, and of a deed of sale of two slaves D Liston . . . . .	950
VII (1838)	Notices on the different systems of Buddhism, extracted from the Tibetan authorities Alexander Csoma Kőrösi . . . . .	142
IX Part II (1840)	Notice of Amulets in use by the Trans-Himalayan Buddhists W E Carte With a note A Csoma de Kőrös (With 3 Plates) . . . . .	904
X Part I (1841)	On the laws and lawbooks of the Armenians Johannes Arvall . . . . . * Account of Arakan Lieut Phayre ... . .	235 679
XII Part I (1843) Part II	Memorandum on the Beloochees and other tribes of Upper Scinde and Cutchee Lieut J Postans . † Report on the Manners, Customs and Superstitions of the people of Shoa and on the history of the Abyssinian Church Captain Graham . . . . .	23 625
XIV Part I (1845) Part II	Note on the Religion of the Sikhs, being a notice of their prayers, holidays and shames Major R Leech . . . . . On the tenures and fiscal relations of the owners and occupants of the soil in Bengal, Bihar and Orissa James Alexander . . . . .	393 527

Journal		
Vol XV (1846)	* A note on some hill tribes on the Kuladyne River, in Arakan Lieut T Latter (With a Plate) ....	60
XVII Part II. . (1848)	Gleanings in Buddhism, or translations of passages from a Siamese version of a Páli work, termed in Siamese "Phrá Pathom" Lieut-Col J Low. . A few Gleanings in Buddhism Lieut-Col Low .. * On the Chepang and Kúsúnda tribes of Nepal. B H Hodgson (With a Plate) .....	72 591 650
XX (1851)	Notes on the Mahápurushyas, a sect of Vaishnavas in Asám Capt E. T Dalton. ....	455
XXI (1852)	Notes on Eastern Tibet Dr. A Campbell (With a Map) ..... Account of a visit to the shrine and town of Sakhi Sarwai in the lower Derajat, with a notice of the annual Mela or fair held there Lieut H G Raverty ..... Notes on northern Cachar. Lieut R Stewart ....	215 329 582
XXVII (1858)	Notes on the Karens Francis Mason .....	129
XXVIII (1859)	On the Swayamvara of the ancient Hindús, and its traces in the ancient word generally E B Cowell Notes and queries suggested by a visit to Orissa in January 1859, Rev J Long .....	31 185
XXX (1861)	Papers relating to the Aborigines of the Andaman Islands Captain J C. Haughton and Lieut-Col Albert Fyche (With a Plate) ....	254
XXXIII (1864)	Account of further intercourse with the Natives of the Andaman Islands Colonel Tytler..... An account of Upper Kashkár, and Chitral or Lower Káshkár, together with the independent Afghan State of Panj-korah, including Talísh. Captain H. G. Raverty.....	17 11 13

Journal		
Vol XXXIV (1865)	Description of a mystic play as performed in Ladak, Zaskar, etc Captain H H Godwin-Austen (With 5 Plates) .....	71
XXXVIII (1869)	The District of Lúdiáná T W H Tolbort .....	83
XXXIX (1870)	The Vastuyaga and its bearings upon tree and serpent worship in India Babu Piatápa Chandra Ghosha The funeral ceremonies of the ancient Hindus Babu Rájendralála Mitra .. .. .	199 241
XL (1871)	A visit to Kharakpur, in Mungir, and several places in the Banka Sub-division (Bhagalpur) Rashbiháí Bose .....	22
	The country of Bray F S Growse .. .. .	34
	Legends and Ballads connected with persons deified or held in great veneration in Bhágálpur and the neighbouring districts Rashbiháí Bose .....	138
XLI (1872)	Notes on a visit to the Tribes inhabiting the hills south of Sibságar, Asám (With 5 Plates) ....	9
	The legend of Bághesar, a deified spirit held in great reverence by the Kusrú, Súrí, Markám, Netiá and Sársún clans of the Gond Tribe Captain W L Samuells .. .. .	115
	Beef in ancient India Babu Rájendralála Mitra ..	174
	A Pioneer in Ancient India Babu Rájendralála Mitra . . . . .	340
XLII (1873)	Spirituos drinks in ancient India Babu Rájendra- lála Mitra . . . . .	1
	Postscript to the above .....	58
XLIV (1875)	Krishna-cultus in the Brihat Samhitá Piannath Pandit .....	15
	On the Khyeng People of the Sandoway District, Arakan Major G E Fryer .....	39

Journal	Rough notes on the Angami Nágas (With two Plates) .....	314
Vol XLIV (1875)	An account of the Marwár Bhils Dr T H Hendley. (With a Plate) .....	347
XLV (1876.)	On early Asiatic Fire weapons. Major-General R MacLagan .....	30
	On human sacrifices in Ancient India. Dr Rájendralála Mitra. ....	76
	Description of a trip to the Ghilghit Valley, a dependency of the Máhárája of Kashmir. Captain H. C Marsh. (With 4 Plates) .....	119
	Morals of Kálidása Prannáth Pandit .....	352
	An imperial assemblage at Dehl three thousand years ago Di Rájendralála Mitra. ....	368
XLVI (1877)	Are Kalidása's heroes monogamists G A Grierson .....	39
	On the route between Sohár and el Beieymí in 'Omán, with a note on the Zaff or gipsies, in Arabic Lieutenant-Colonel S B Miles (With a Map) .....	41
	The Mythic history of the god Viraj G S Leonard .....	126
	Further proofs of the polygamy of Kalidása's heroes G S. Leonard ....	160
XLVII (1878)	Stray Arians in Tibet. R B Shaw (With a Plate) .....	26
	On representations of Foreigners in the Ajanta Frescoes. Dr. Rájendralála Mitra. (With 4 Plates.) .....	62
	Recent Trans-frontier Explorations, communicated by Col J T Walker (With a Map) .....	78
	Mathurá Notes F S Growse. (With 14 Plates) .....	97
XLVIII. (1879)	The Snake Symbol in India, especially in connection with the worship of Siva J H Rivett-Carnac. (With 2 Plates) .....	17
	Some further Notes on Kalidása G A Grierson...	32
	The sect of the Prannáthis F S Growse .....	171
	Rough notes on the Distribution of the Afghan Tribes about Kandahar. Lieut. R. C. Temple. ..	181

Journal	Remarks on the Afgháns found along the route of the Tal Chotiali field force, in the Spring of 1879 (With 3 Plates and a Map ) Lieut R C Temple 91, 143
Vol XLIX (1880 )	
L (1881 )	Contributions on the Religion, History, etc of Tibet Babu Sarat Chandra Das ..... 187, 206
LII (1882 )	Contributions on the Religion, History, etc of Tibet. (Continued) Babu Sarat Chandra Dás 1, 15, 53, 58, 87, 99, 115, 121
Pro- ceedings - (1865 )	Ethnology of India Hon'ble G Campbell ..... 142 On the Andamanese Dr Smith ..... 182
(1866 )	The Rám Thammám sect in the Panjab. J D Tremlett . ..... 109
(1867 )	Memorandum on the Panthays of Yunan Colonel A Fytche ..... 176
(1868 )	Notes on the Kherrahs, an aboriginal race living in the hill tracts of Manbhum V Ball .. ..... 190
(1872 )	On the Nágas of Asam S E Peel .. ..... 135
(1873 )	An Account of the Tenets of the Ibádhí sect of 'Oman E C Ross. .... 2 Notes on children found living with wolves in the North Western Provinces, and Oudh V Ball .. 128 The Bhadu and the Báuris. Babu Upendra Chandra Mukerjea ..... 202
(1874 )	Description of a bachelor's Hall among the Mikir Tribes, Assam, with certain symbols connected therewith. C Brownlow. (With a Plate ) .... 17



Pro- ceedings	On leprosy in Ancient India Babu Rajendralala Mitra .....	160
(1875)	On Greek art in India Babu Rajendralala Mitra ..	166
(1876)	On human sacrifices in ancient India Dr. Banerjee, Hon'ble E C Bayley, Dr R Mitra .....	53
	Notes on the Inhabitants of the Nicobars F A de Roepstorff .....	112
(1879)	On the installation of the Dalai Lama C Girdlestone (With a Plate) .....	275
	Pictures of the Tirthankaras Dr. R Mitra . ...	276
(1881)	Notes on the inhabitants of the Nicobars F A de Roepstorff .. .....	7, 104
	On a sect of Hindu dissenters, called Kumbhupatias	155
(1882)	On a sect of Hindu dissenters, followers of Alekh ..	2
(1883)	Notes on the Nangis, a religious sect J W Parry	100

*N B*—A number of contributions, belonging to this chapter, will be found noticed in the Classified Index to the Scientific Papers of the Society, under the Chapters V, VII, VIII on Geography, Ethnology, and Economic Science and Statistics

# INDEX OF NOTICES PUBLISHED IN THE PROCEEDINGS (1832-64).

## I

### ANTIQUITIES.

Pro- ceedings	Sc		
(1832)		Image of Bhairava, presented through Dr Twining, by General O'Halloran .....	512
(1833)	I	Some Inscriptions, collected by Captain Forbes, in the Matele District, Ceylon ..	518
	I	An Arabic Inscription on a rock in the Fort of Chanderi D J Tytler . . . . .	518
(1834)	I .	Translation of an Inscription in Pali and Burmese from Arracan H Walters. ..	194
	I.	Inscription in Nagari, Marathi and Tamil characters, found at Benares Munshi Pal Singh .. . . . . .	301
	Sc	Image of Buddha, dug up near Kabul Munshi Mohan Lal. .... .	362
		An Egyptian mummy Lieut E C Arch- bold .. . . . . .	363, 477
		Collection of paintings, books and casts, belonging to the late R Home, Esq, Lucknow, presented to the Society ....	524, 570
(1835)	A, Sc & C	Some singular ancient monuments near Hyderabad Dr S G Malcolmson ....	180

Pro- ceedings		A wooden standard taken from the Bhotian army, presented by Capt Bagh ..... 248
(1836)	Sc	Sculpture of Silenus or Bacchus, from Mathurá, sent by Col Stacy ..... 517
	Sc	Collection of statues and other specimens of Bauddha sculpture from Sarnáth Presented by Captain A Cunningham .... 588
(1837.)	C & I	On the Caves and Inscription of Khandgiri. Lieut M Kittoe. .... 318, 986
(1838)	I	Inscription on a circular copper-plate General Court ..... 366
(1840)	I	Inscription on a Chabútra at Devalghar in Ghurrawal Captain Huddleston ..... 730
(1841)	I	Asoka Stone inscription, deposited in the Society's Rooms ..... 508
(1842.)	I	Abstract of a Buddhist Inscription at Aurung in Chatisgarh Major Thomas Wilkinson. .... 273
	Sc	Burmese Images from Rangoon. Captain W. Macleod ..... 439
	Sc	Antiquities in the Society's Museum. H. Torrens. .... 574
(1843)	I	Inscription on a brass image from Budh Gaya E C Ravenshaw ..... 1113
(1844)		Antiquities and Coins from the Soonderbuns. John Mack ..... lxxix

Pro- ceedings	I A	Páli Inscription from Bihai Mr Latour .. xxviii On a Hindu Temple, 460 years old, with Cufic inscriptions Captain Kittoe .... liii
(1846 )		
(1847 )	C  I	Remarkable cave Temples in the Mirzapore district W M Stuart ..... 83 Persian Stone Inscription in Cuttack Capt H Rigby . .... 202 On an ornamented Garrow korah or dish S Reynolds .. . . . 1253
(1848 )	I  A	An Arabic Inscription, in Kufic characters, on a Jain temple near Ajmir E S Brandreth. .... 553 List of antiquities, presented by Govern- ment Captain M Kittoe . .... 697
(1852 )	A	A Picture by a Burmese Artist Dr A Thomas . . . . . 275 Antiquities at Gouri in Bengal Captain Layard . . . . . 276 Description of a wrought iron gun from Burmah Major Hugh Fraser and Lieut E C S Wilhams (With a plate, in vol for 1853) .... 631
(1853 )	I  I  I  A	On a Sanskrit Inscription from Thánesar L Bowring ... .. 204 On the Khanníarah Inscription E C Bayley ..... 309 On two slabs of Basalt with Páli Inscrip- tions Captain Layard . .... 577 On the antiquities of Singhbhoom. Captain J C Haughton. .... 579
(1854 )	Sc	Indo-Grecian Sculptures from the N W Frontier. Major J Abbott. (With a Plate) ..... 394

Pro- ceedings.	Sc & I	Three bronze figures from Cuttack, with an inscription R. P. Harrison .....	730
(1855)			
(1856)		On the Remains of the ancient Burmese Metropolis, called Pagan Captain Yule	572
(1857.)	P	On a collection of old bricks, chiefly dug out of the oldest Hindu Forts and cities of the Mahabhárat period O Gubbins ....	154
(1858)	A.	Description of the old Fort of Bilhari Captain Vanrenen .....	71
	Sc	Note on a Stone Figure of a Bull from Buddha Gaya Babu R Mitra (With a Plate) .....	74
	Sc	Note on a small Indo-Greek Sculpture. Co- lonel Abbott .....	261
	P & I	Note on a brick bearing a Bengali Inscrip- tion Babu Hori Shunker Dutt and Babu Gourdash Bysack .....	370
(1859)	V	Note on four sepulchral alabaster Urns, found in Thebes, in 1846 D. T Money	163
		Note on two wooden guns, taken at the bat- tle of Berhampur by Col Duxeford, in October 1858 E Samuells .....	180
(1860)	I	An Arabic Stone Inscription from Mirza- gunge, sent by J. H Riley Captain W N Lees.....	406
(1861)	R	Note on twelve stone hatchets or celts, from Jabulpur H P Le Mesurier .....	81
	I	Note on an Inscription on a stone at Sahib- ganj T Oldham and Babu R. Mitra ..	171
		Account of a printing press discovered in the Fortress of Agia, in 1803 Lieut- Col H Yule .....	175
	Sc	Account of some of the Sculptures in the Peshawer Museum Rev W. Loewenthal	411
		Note on two small stone urns in the Pesh- awer Museum G. D. Westropp .....	113

Pro- ceedings			
(1862)	Sc & I	Memorandum by Colonel A. Cunningham regarding a proposed investigation of the Archæological Remains of Upper India.	98
	I.	Notice of some sculptures and inscriptions from Muttra E O Bayley. ....	300
	R	On the Wardak and other Inscriptions Colonel A Cunningham .....	303
	A	Account of some celts, found in Bundelkhand W Theobald (With two Plates)	323
		Account of the Buddhist discoveries at Sultanganj. Colonel A. Cunningham .....	452
(1863)	Sc	Memorandum regarding two life-size statues discovered in the Delhi Palace Major-General A Cunningham .....	296
	I	Note on the Bactro-Pali Inscription from Taxila and Wardak Babu R Mitra. ..	437
(1864)	R	On Stone implements from Madras Mr Oldham .....	67
	Sc	On four large slabs of wood carved with figures of Hindu idols, from the Kaiser Bagh, Lucknow .....	114
	C	Letter on the Caves of Ajunta and Ellora J Mulheran .....	216
	I	An Inscription on a rock at Taikal. L B Bowring .....	573

## II.

## COINS, GEMS, ETC.

Pro- ceedings	C	Note on two Ceylonese Coins (gold and copper) H H Wilson. . . . .	15
(1833)	I	Note on eleven coins from Mamkyila Lieut. A Burnes . . . . .	153
	H. & M	Hindu and Moghul coins presented to the Society . . . . .	204
(1834)	H.	Twelve punch-coins dug up in the Sandar- bans W Sturmer. . . . .	301
	B	Catalogue of General Ventura's Bactrian Coins . . . . .	391
(1835)	B	Bactrian Coins and Relics from Afghanistan W. Masson. . . . .	233
'		Collection of Colonel S P Stacy's Coins... .	295
(1837)		Catalogue of Coins in the Society's Cabinet Some ancient tin Coins from Singapore. T. Church . . . . .	156 896
(1839)	B	On some Bactrian Coins Lieut.-Col. Stacy (With two woodcuts) . . . . .	312
(1840)		On an old Chinese coin W. E. Sterling. . .	879
(1844.)	R, Gr, H	Roman, Greek, and Kashmir Coins, from Lieut A Cunningham. . . . .	72
	H	Note on Kashmir Coins Lieut A. Cun- ningham . . . . .	167
	Gr, R, H, M, P P. & M.	List of Coins presented to the Society by H W. Torrens . . . . .	511
		Priced list of Pathan and Moghul Coins, purchased from Lieut. A Cunningham . .	595
(1842)		List of English Coins purchased for the Society Lieut A Cunningham . . . . .	77

Pro- ceedings		Catalogue of Coins in the Society's Cabinet Dr E Roer . . . . . 133
(1843)		List of Norwegian Coins, given to the Society Dr E Röer . . . . . 515 On two gold coins from Chedooba Captain D Williams . . . . . 520, 734
(1845)	H	On six gold coins from Heolee in the Mal- war Talooka of the Ratnagarhi Collec- torate James Bird . . . . . 1x
	H	Silver Coins found on the Sagar Island H. Torrens . . . . . xcv
(1848)	I	Eight gold Indo-Scythian Coins found at Kunaraya, in the Mungir District J W Laidlay . . . . . 454
(1850)	M	Moghul Coins, presented by Mr Gubbins Babu R Mitra . . . . . 346
(1852)	Bg	Silver and copper Coins from Gaur and Gangarampur Capt Layard . . . . . 337
(1853)	H	On the Mitra Coins Capt A Cunningham 309
(1854)	H	Copper and silver Coins of the Cheroo Rajas Capt Sherwill . . . . . 502
	Bg	Silver Coins found at Gowhatty Capt E T Dalton . . . . . 616
(1856)	Bg	On a silver Coin from Mr Downward at Precoond Babu R Mitra . . . . . 370
	B	On some new Bactrian Coins (with two woodcuts) Capt W E Hay . . . . . 433
	H	On a silver coin of Cooch Bihar Babu R Mitra (With a woodcut) . . . . . 457



Pro- ceedings	B. & I		
(1856)		On spurious Bactrian and Indo-Scythian coins Major J. J Bush .....	465
(1857.)	I	A small number of copper coins, found in Sindh, near Hyderabad W H Hoppner. 167 On an Indo-Scythian gold coin Babu R. Mitra..... .. 172 Note on the collection of Coins in the Society's Cabinet Mr Fieeling ..... 234	
(1858.)	Su & H.	Note on some Suráshtrian and punched coins Babu R Mitra .....	369
(1862)	Gr	Note on a small silver coin of Alexander the Great E C Bayley .....	206
	P	Remarks on a rare silver coin of Altamsh, found at Kandí, in the Murshidabad District. E C Bayley .....	207
	Bg	On a Bengal Pathan coin, found at Raj- sháhí E C Bayley. ....	318
		On a collection of Muhammadan coins, procured from Capt Stubbs. E. C Bayley.	436
	P	On two Delhi Pathan silver coins A Grote	418
(1863)	P	Silver coins of Pathan Sultans of Delhi E C Bayley .....	35
(1864)	P & Bg	Note on the great hoard of Pathan Coins discovered in Kuch Behar Babu R. Mitra .....	579, 480
	M	On Zodiacal rupees of Jehangír. Babu R Mitra .....	483
		On the "saraffins" and their connection with the English "sovereign." Capt W. N. Lees. ....	654

## III.

## HISTORY.

Pro- ceedings	On the mythological connection between Artemis and Nana Dr W E Carte .....	914
(1840)		
(1847)	On the identification of the <i>Serica</i> of the Periplus Capt A Cunningham .. ..	989, 1254
(1853)	On the Kotuck Kings of Kanger E C Bayley ..	204
(1863)	A list of the Kings of Arakan Lieut -Colonel S R Tickell .....	308
(1861.)	On the Muhammadan Historians of India Capt W N Lees .. .	484

## IV.

## LANGUAGE AND LITERATURE.

Pro- ceedings	Catalogue of 352 valuable and useful Chinese books presented to the Society . . . . .	246
(1836)	Catalogue of Burmese and Talain Manuscripts, pre- sented by Capt W Foley . . . . .	247
	Note on the Páli and Prákrit languages Dr W H Mill . . . . .	830
(1838)	Manuscripts of the Lahta Vistara . . . . .	170
	On the North Indian Vernaculars . . . . .	713
	On the Bactrian Alphabet and Language Prof Lassen	831
(1839)	A Jain Manuscript of the Samavaya Col Alver ..	134
(1840)	On the Jamí-ut-'Tawárikh. W Morley . . . . .	115
	The same Professor Forbes . . . . .	1131
(1841)	Language of the Hos or Kols Capt. F Jenkins and D F McLeod . . . . .	172
(1843.)	Identity of the Gond language with Canarese Dr F McLeod. . . . .	132
(1846)	On the Abom language Major Jenkins and Capt Brodie . . . . .	lv
(1863)	On four valuable Persian Manuscripts E B Cowell	182
(1864)	On the Romanising of Oriental Alphabets Capt W N Lees, Bishop Cotton and Mr Hooley . . .	116
	On the Mubammadan Histories of India Capt W N Lees . . . . .	164
	On the origin of Hindi and its relation to the Urdu dialect Capt W N Lees . . . . .	169
	On the Derivation of the numismatic term "re- reign" Captain W N Lees . . . . .	505

V

RELIGION, MANNERS AND CUSTOMS, ETC.

Pro- ceedings	On the marriage rites and usages of the Játs of Bharatpur J S Lushington ..... ....	154
(1833)		
(1846)	On a singular custom at Lahore Major Kittoe ..	111
(1856)	On the Coorumbis and other little known tribes of Central India Lieutenant Maedonald. ....	436
(1864)	Letter regarding a mystery play at the Hismis Monas- tery between Leh and Ladak Capt A B Melville.	478



CENTENARY REVIEW  
OF THE  
ASIATIC SOCIETY OF BENGAL  
*From 1784—1883.*

---

PART III.  
NATURAL SCIENCE.

BY  
P N BOSE

---

Published by the Society.



# ERRATA

## PART III

---

Pages 28 to 47, for '*Stratigraphical Geology*,' read *Stratigraphical Geology*

Page 65 for 'T Anderson,' read 'J Anderson'






# Centenary Review

OF THE

## ASIATIC SOCIETY OF BENGAL

*From 1784 to 1883.*

——  
Part III.

### NATURAL SCIENCE.

#### CHAPTER I

##### MATHEMATICAL AND PHYSICAL SCIENCE \*

[§ 1 Introductory    § 2 Astronomical Observations and the Trigonometrical Survey — Burrow — Pearse — Colebrooke — Lambton — Warren — Hodgson and Herbert — Everest — Walker — Shortrede — Pratt — Taylor — Everest.    § 3 Meteorology — Pearse — Trail — Prinsep — Boileau — Schlagintweit — Shukdar — Blanford  
§ 4 Tidal Observations — Kvd — Waterhouse.    § 5 Law of Storms — Piddington  
§ 6 Electrical Researches — O'Shaughnessy — Schwendler    § 7 Photography, Process of Coining, &c — Waterhouse — Tenant    § 8 Mathematical Sciences of the Hindus — Davis — Jones — Burrow — Playfair — Bentley — Colebrooke — Hunter ]

##### § 1 — *Introductory*

WHEN the Asiatic Society was formed, the Biological and Geological Sciences were in a transition state. The end of the eighteenth century was the beginning of the history of Modern Natural Science. The different branches of Mathematical Science, however, had then attained to a high degree of excellence. Mathematics had for over

---

\* See Index, pp 1—xxv

a century, been a recognized branch of study in European Universities; and men who came out to India, especially in the scientific branches of the Military service, had mostly been well grounded in that subject. Among the earlier members of the Society, therefore, we find a number of mathematicians of no mean order; and down to 1828 the only scientific contributions of any importance received by the Society were connected with some branch or other of Mathematics, pure or mixed.

§ 2.—*Astronomical Observations and the Trigonometrical Survey.*

The first number of the Society's *Transactions* contains

R Burrow  
1788—1795 \*

several articles by Reuben Burrow, an excellent mathematician. In 1787, he

was requested by Colonel Call, the then Surveyor-General, to determine astronomically the position of the principal places in Bengal. Burrow went up the Ganges as far as Haridwar, and the results of his astronomical observations, communicated to the Asiatic Society, were published in the fourth volume of the *Researches*. He intended to give a detailed account of the manner in which the latitudes and longitudes were deduced; but did not live to accomplish his purpose.

Colonel Pearse, Commandant of Artillery, contributed

T D Pearse.  
1788

to the first volume of the *Researches* a valuable record of astronomical obser-

vations made in Fort William and between Madras and Cal-

R H Colebrooke.  
1795

cutta between 1775 and 1784, and Lieutenant Colebrooke (the future Sur-

---

\* These dates (which are mostly the dates of publication) have been given to facilitate reference to the accompanying Indices. When a contribution has appeared long after the date of communication, it has been ascertained, as approximately as possible, and inserted marginally, and the date of publication specially noted in the text.

veyor-General), who ably assisted Colonel Pearse, made observations of latitudes by meridian altitudes of stars, and of longitudes by eclipses of Jupiter's satellites on a voyage to the Andaman and Nicobar Islands in 1790, and subsequently in the *Carnatic*, and communicated them to the Society in two papers published in the fifth volume of its *Transactions*.

In the list of members appended to the sixth volume of the

William Lambton,  
1799—1820

*Researches*, we find the name of Captain

William Lambton, a remarkable man, the father of the great Indian Survey. He distinguished himself highly by his bravery and presence of mind in the memorable siege of Seringapatam. On the conclusion of the *Maisúr* campaign, "having long reflected on the great advantage to general Geography that would be derived from extending a survey across the Peninsula of India for the purpose of determining the positions of the principal geographical points, and seeing that by the success of the British arms during the late glorious campaign, a district of country is acquired which not only opens a free communication with the Malabar Coast, but from its nature affords a most admirable means of connecting that with the Coast of Coromandel by an uninterrupted series of triangles, and of continuing that series to an almost unlimited extent in every other direction," he communicated his ideas to the Governor of Madras, who approved of them and appointed him to conduct the measurements. The apparatus with which he was at first equipped consisted of a chain of blistered steel constructed by Ramsden, five coffers, twelve pickets of three-inch diameter, hooped and shod with iron, and a levelling telescope. With these instruments he measured a base line near *Bangálú*, the particulars of which were communicated to the Society and published in the seventh volume of their *Transactions*.

Satellites." The same volume gives an account of the trigonometrical and astronomical operations undertaken by the surveyors to determine the heights and positions of the principal peaks of the Himálaya Mountains

George Everest, who came to Bengal as an Artillery  
G Everest  
1823—43 Cadet in 1806, joined the Survey under  
 Lambton in 1818. He succeeded his

Chief as Superintendent of the Great Trigonometrical Survey in 1823. He was away in England from 1825—30, where he employed his time in studying the newest improvements and looking after the construction of instruments for the Survey on the latest and most approved principles. On his return to India, he delivered, before the Physical Class of our Society, a lecture, on the 11th of March, 1831, in illustration of the new measuring apparatus brought out by him. The substance of the discourse appears in the second part of the eighteenth volume of the *Researches*.

Everest, who combined in himself the appointments of  
A. Waugh and J T  
Walker Superintendent of the Great Trigonometrical Survey and Surveyor-General of India, retired in 1843, and was succeeded by Colonel (afterwards Sir) Andrew Waugh. A summary of the work done under his superintendence was communicated by Major (now Major-General) Walker, the present Surveyor-General, to the Asiatic Society in 1862. General Walker presented the Society with abstracts of the operations of the Trigonometrical Surveys down to 1864.

Captain Robert Shortrede, who was appointed to super-  
R Shortrede  
1840—43 intend the Bombay Longitudinal Series in 1827, and was subsequently placed in charge of the Punjab Revenue Survey from 1849 to 1856, was an active contributor on mathematical subjects. In 1841, he constructed a table which showed at once, without

calculation, the mean times of new and full Moon, &c, as also the Moon's age to the nearest day. It is published in the twelfth volume of the *Journal*, along with a Companion to the Moon Table, which was constructed in order to have the times of true as well as of mean new and full Moon.

The Venerable Archdeacon Pratt, one of the best mathematicians India has ever seen, was long and actively connected with the Society. The Notices of the Royal Astronomical Society for January 9, 1857, contained a paper by Lieutenant (now Major-General) J. F. Tennant, Bengal Engineers, on "An Examination of the Figure of the Indian Meridian as deduced by Archdeacon Pratt from the two Northern Indian Arcs, with a Proposition for testing that form by Astronomical Observations." This called forth a reply from the Archdeacon, which was published in the *Journal* for 1858. He concludes his communication with remarks on the position, at that time, of the question of the Himalayan attraction, as affecting the Great Trigonometrical Survey. Colonel Tennant communicated a counter-reply which drew forth another article from Pratt. In this he reiterated his opinion that the Himalayan attraction was not to be trifled with and passed over. "The Himalayas are as great a tyrant," says he, "in the delicate problem of determining the curvature of the arc of the Meridian in Hindusthan as the planet Jupiter is in the Solar System." The Archdeacon explains the object of his writing to have been not to detect and expose flaws in the operations of the Great Trigonometrical Survey, but to assist in pointing out the sources of error and the further observations and surveys which are necessary to remedy the evils which must inevitably follow if these sources of error are not attended to.

The discovery of a lofty peak near Káshmir by Major Montgomerie in 1859, only 724 feet lower than Mount Everest, led Mr Pratt to write another paper on the influence of mountain attraction, which was read at the September meeting of the Society. He concludes by stating his persuasion, that when sufficient data were obtained to make the calculation complete, it would be found that mountain attraction, combined with deficiency of attraction of the ocean, so far affects the levelling of the instruments of observation as to cause the survey to bring out the height of the newly-discovered mountain near Káshmir too low by 150 or 200 feet relatively to Mount Everest. The last of his contributions appeared in the *Journal* for 1865, entitled "On the degree of uncertainty, which local attraction, if not allowed for, occasions in the map of a country and in mean figure of the earth."

Glanville Taylor, who was Astronomer in charge of the Madras Observatory from 1830 to 1848, contributed a paper to the *Journal*, in which he described a method of making "the telescope a collimator to itself, by viewing the image of the wires reflected from a basin of quicksilver at the same time that the direct image is viewed in the ordinary way through the eye-piece." To accomplish this, he showed it was only necessary "to exhibit a bright light behind the wires, so as not to interfere with the eye of the observer when applied to the eyepiece." In another article, published seven years later, he recorded the observations of the magnetic dip and intensity at Madras.

The Rev. R. Everest was a frequent contributor. We shall have to speak of him later on in connection with Geological investigations. He is the author of a series of papers on the Revolution of the Seasons, the Influence of the Moon on

T G Taylor  
1831—1837

R Everest  
1832—39

Atmospheric Phenomena, the Heights of the Barometer as affected by the position of the Moon, the Amount of Rainfall at Calcutta as affected by the declination of the Moon, &c. The last of his long list of contributions is contained in the eighth volume of the Society's *Journal*, in which he records his observations on the rain and drought in India from 1831 to 1838

### § 3 — *Meteorology*

Colonel Pearse, whose astronomical labours we have  
 T D Pearse  
 1788 noticed before, kept a Meteorological Journal at Calcutta, between 1785 and 1788, which was printed in the first number of the *Asiatic Researches*. The earliest meteorological record extant in India, however, is that kept by Henry Trail  
 H Trail  
 1790 from the 1st of February 1784 to the 31st of December 1785, which was published two years later in the next number of the same publication

The illustrious James Prinsep, to whom this Society  
 J Prinsep  
 1820—39 is so largely indebted for its success and prosperity, and whose name is so well and so widely known in connection with archæological researches, rendered no mean service in the cause of the Mathematical and Natural Sciences. His, like Sir W. Jones's, was a remarkably versatile genius. But the former had the advantage of having had a thorough scientific training in England before he came out to India. In 1819, at the age of twenty, he was appointed Assistant Assay Master at the Calcutta Mint, under Horace Hayman Wilson, the eminent orientalist. In the following year he went to Benares as Assay Master, while there he made a series of careful meteorological investigations, which he communicated to the Asiatic Society. He returned to Calcutta in 1830, and co-operated heartily with Major Herbert in starting a periodi-



cal called "Gleanings in Science" On the appointment of the latter as Astronomer in charge of the Nabáb of Oude's Observatory at Lucknow in 1831 Prinsep became the editor of the periodical; and on March 7th, 1832. changed its name to "The Journal of the Asiatic Society of Bengal." He was elected Secretary to the Physical Section of the Society on the 19th of August, 1830; and General Secretary on the 9th January, 1833.

The first volume of the *Journal* contains an account of Prinsep's Observations of the Transit of Mercury on the 5th of May, 1832, made with a 4-feet achromatic telescope of 4-inch aperture, mounted equatorially and provided with a delicate wire micrometer. In March, 1833, he published the results of his experiments on the expansion of gold, silver, and copper, and two months later described a compensation barometer invented by him. One of the subjects to which Prinsep devoted a great portion of his time and attention was observation of the wet-bulb indications. He had with but little intermission registered daily observations since 1822. In July 1836, he contributed a paper to the *Journal*, entitled "Experimental Researches on the Depressions of the Wet-bulb Hygrometer."

The earlier volumes of the *Journal* contain a number of Meteorological Registers from various stations\*. The most important of these were the "Term Observations" made in compliance with Sir W. Herschel's instructions. Hourly

---

\* Simla, v 825, Bijnúr ii 206, Bombay v 821, Katmandu v 824 829, and xii. 768, Tírbhut v 822, Socotra, v 821, Bangalur, v 296, Dárgah v 310, 700, 888, Rágun, xxii 113, 317, 421, 502, 596, xxiii (1) Bámbará i 154 ii 383, Chinsurá ii 86, Ghazipur, ii 604, Lucknow, xxiii 76, Masurá iv 20, Kotgar, ii 615, Chirápuñi, i 297, Canton and Macao, i 703, Morárpur, ii 208, Nágpur, ii 241 543, Singápur, ii 428, Nasirábád, iv 49, Mádará iv 715, Dádúpur, v 299, Umbalá, iv 405

observations of the barometer, thermometer, and wet-bulb thermometer were taken at Calcutta on the 21st and 22nd of December, 1835, and again on the 21st and 22nd of March, 1836, by Mr H Barrow, Mathematical Instrument-maker to the East India Company. Similar observations were taken at Bangalûr by Dr J Mouat, and at Dâdûpn by Colonel Colvin and Lieutenants Baker and Durand. All these records were printed in 1836 in the fifth volume of the *Journal*. The same volume also contains a paper by Prinsep on "A Comparative View of the Daily Range of the Barometer in different parts of India."

Major Bouleau, author of a "New and complete set of  
T. J. Bouleau  
1844—45 Traverse Tables, showing the differences of latitude and the departure to every minute of the quadrant," and Superintendent of the Magnetic Observatory at Simlâ, contributed the results of his physical investigations to the *Journal*, among which were tables for determining the elastic force of aqueous vapour in the atmosphere and the temperature of the dewpoint, by observations of a dry and wet-bulb thermometer, computed agreeably to Dr Aphjohn's formula, and tables of mean astronomical refractions.

The Messrs Schlagentweit, who conducted a Magnetic  
Messrs Schlagentweit  
1854—55 Survey from 1854 to 1858, published then reports in the pages of the *Journal*. These reports contain a great variety of observations—geographical, meteorological, geological, &c.

The Meteorological observations taken at the Surveyor-General's Office have appeared regularly  
R. Shikdâr  
1853—64 in the *Journal* and the *Proceedings* down to 1876. From 1853 to 1864, they were compiled by Râdhânâth Shikdâr, who was for several years on the Physical Science Committee of the Society.

Mr. Blanford joined the Geological Survey in 1855; but left it in 1861, and became Professor at the Presidency College. Six years later, he was appointed Meteorological Reporter to the Government of Bengal; and in 1875 became Meteorological Reporter to the Government of India. Mr. Blanford was Secretary to the Society from 1864 to 1868, and has long been a most valuable member. He contributed in 1871 a Note on the error of the Calcutta Standard Barometer compared with those of Kew and Greenwich. In 1875, he read a paper in which he showed the variation of the sun's heat to be so considerable as to 'have an appreciable effect on all terrestrial phenomena, and recommended direct actinometric observations as the only means of ascertaining the variation in the absolute quantity of heat. The *Journal* for 1876 contains his observations on "The irregularities of atmospheric pressure in the Indian monsoon region," besides a paper on "Comparisons of dewpoint temperature," and another on the "Physical explanation of the inequality of the two semidiurnal oscillations of barometric pressure." In the first of these papers it is shown, that amid all the changes to which atmospheric pressure is subject, certain peculiar features tend to perpetuate themselves, though they never become permanent, and that these peculiarities in the distribution of barometric pressure exercise an important influence on the rainfall, by affecting the course and velocity of the winds which bring the rain. The second paper brings together the results of a number of experiments made in various parts of India with the object of comparing the observed hygrometric state of the atmosphere ascertained by Regnault's Hygrometer, with that computed with the help of the dry and wet-bulb thermometers. In the last-named article, Mr. Blanford attributes a great part of the diurnal irregularity of the barometric tides to

H F Blanford.  
1870—

the transfer of air from land to sea and *vice versâ*, and to a similar transfer which may be proved to take place between the plains and the mountains. In 1877, the Society received two contributions from Mr. Blanford, one "On the Variation of the Barometric Tides in connection with diurnal land and sea breezes" and the other "A Catalogue of the recorded Cyclones in the Bay of Bengal up to the end of 1876," and the following year, a paper was read by him on the "Diurnal Variations of the Rainfall frequency at Calcutta." In January 1880, Mr. Blanford showed that the excessive pressure of 1876—78 was the maximum phase of a cyclical variation in India and the Malay region, but in Northern Asia it was quite anomalous, and most probably so in Australia. In April 1881, he discussed the circumstances chiefly determining those marked variations of temperature which characterize the corresponding seasons of different years in India, and the variations in the density of the lower and higher strata of the atmosphere, as shown by a comparison of the barometric pressure at hill-stations with the pressure on the plains. The last of his long and valuable series of contributions appeared in the last volume of the *Journal*, in which he gave some further results of his sun thermometric investigations with reference to atmospheric absorption and the supposed variation of the solar heat.

#### § 4 — *Tidal Observations*

The earliest Register of Tidal Observations extant in this country is that of the day and night tides in the Hughli at Kiddeipûr from 1805 to 1828, by James Kyd, the founder and the then proprietor of the Kiddeipûr Dockyard. The observations were published in the first part of the eighteenth volume of the *Researches*.

J. KYD  
1829

The heights of the tides are exhibited in maps showing the state of the river throughout the year. In 1833, a table (the earliest of the kind in Western India), showing the rise of spring tides in Bombay Harbour during night and day, was communicated by Benjamin Noton. In the same year Dr. Whewell's "Suggestions to persons who have opportunities to make or collect observations of the tides" appeared in the *Journal*, and the observations which were received in conformity with these suggestions were published in the *Journal* between 1837 and 1850. About the year 1865 or 1866, the late Dr. Oldham, Superintendent of the Geological Survey of India, drew the attention of the Government of India to certain questions which had been raised regarding secular changes in the relative level of the land and sea, which are believed to be going on in various parts of the Bombay Presidency and more particularly at the head of the Gulf, which separates the Province of Cutch from Kattiwar, and he recommended that accurate tidal and levelling observations should be made in that part of the country and repeated at intervals of time sufficiently great to allow the secular changes to reach an appreciable magnitude, and so settle the question. The Government of India sanctioned the proposal, and after some delay operations were commenced in 1872 by Captain A. W. Baird, under the direction of Lieut-General J. T. Walker, Superintendent of the Great Trigonometrical Survey. An interesting account of the early operations during the years 1873 to 1875 was compiled by Major (then Captain) J. Waterhouse and communicated by General Walker in 1878. Tidal observations are now taken regularly at several stations round the coasts of the Indian Ocean and Bay of Bengal.

§ 6 — *Electrical Researches.*

Sir W. O. Shaughnessy,\* Professor of Chemistry at the  
W. B. O. Shaughnessy Medical College and for some time Joint  
1840-42 Secretary to the Society, contributed

---

\* Sir W. O. Shaughnessy was the first Director of Telegraphs in India. He was Secretary of the Society in 1838-39, and again from 1846 to 1850.

various papers, among which were several on electrical subjects, the most notable among these being entitled "Memoranda relative to Experiments on the communication of Telegraph Signals by induced electricity."

To the late Mr. Schwendler, who was for many years a most active member, the Society owes a number of valuable papers. A votary of science in the true sense of the expression, he took a prominent part in the scientific movements of the day, and will be long remembered as one of the founders of the Zoological Gardens—an institution which promises to be a centre of zoological study in India. The first paper he read was on a practical method for detecting bad insulators on Telegraph lines, published in the *Proceedings* for March, 1871. He found that a great many lines in India contained electrically defective insulators; some to such an extent as to lower the insulation to a degree which is fatal to the direct and regular working of long lines. Mr. Schwendler exhibited an apparatus for testing the resistance of insulators, and explained in detail the advantages of his method. In February 1874, he communicated an article "On the Theory of Duplex Telegraphy." Considering the line as a variable conductor only, but not acting perceptibly as a Leyden Jar, Mr. Schwendler found that, by using the Budge Method, the branches of the bridge, with the exception of the one which lies opposite to the line, should be made each equal to half the measured conductor resistance of the line; while the branch opposite to the line should be equal to the sixth part of this resistance. Further, that this branch, the smallest of all, should be invariably used for readjusting balance when disturbed. In June 1874, he read a paper on Earth-currents, in which he pointed out that though the two phenomena, 'earth-magnetism' and 'earth-currents,' were

L Schwendler  
1871—81

undoubtedly connected with each other, it was by no means established as yet that they were cause and effect, or parallel effect of one and the same general, but entirely unknown, cause. Mr. Schwendler proposed to the Council of the Society to urge on Government the introduction of a system of observation of earth-currents, the Council took up the proposal most warmly, and appointed him, along with Colonel Hyde, who was then President of the Society, and Mr. R. S. Brough, to work out a practical system.

In 1876, General Strachey had recommended to the Secretary of State for India that a trial of illuminating Indian railway stations by the electric light should be made. In February 1877, Mr. Schwendler, as Superintendent Electrician of Government Telegraphs in India, was requested to institute detailed inquiries, which led him to propose that it would be advisable to make some more experiments before a practical trial at Indian railway stations should be attempted. The Directors of the East Indian Railway agreed to this and sanctioned the necessary outlay. The experiments which were made at the India Office Stores, occupied Mr. Schwendler till November, 1878. The results of these experiments he laid before the Society in March 1879, and they are printed in the *Proceedings* for that month. Next month he read a paper on a "New Standard of Light," which consists of an U-piece of pure sheet platinum cut accurately to fixed dimensions. When a sufficiently strong electric current is made to pass through the platinum, it becomes white-hot and emits a brilliant light. The author showed experimentally how the intensity of this light could be varied,—i. e., the magnitude of the standard altered,—by varying the currents, and also that when the current was kept constant, the light was rigorously constant also. In November, he communicated a paper, in which he described a method



of using an insignificant fraction of the main current, produced by a dynamo-electric machine, for Telegraph purposes. The method in question is simple and ingenious. A strong current is produced through a comparatively small resistance by a dynamo-electric machine, which is an arrangement for converting mechanical power direct into magnetism and electricity, according to the laws of Faraday's Magneto-induction. This strong main current, while available for any kind of useful work, can, without perceptible loss, supply the very weak current required for signalling. Mr. Schwendler made a number of experiments to test the practicability of his new method of supplying signalling currents, and the results of these experiments he communicated to the Society in November, 1880.

Mr. Brough, who has been mentioned above in connection with the "Earth-currents" Committee, published several interesting papers in the *Proceedings*.

R. S. Brough.  
1877.

### § 7.—*Photography, Process of Coining, &c.*

Major Waterhouse\* of the Survey of India, who has for many years been a most zealous member of the Society, was appointed Superintendent of the Photographic Branch of the Surveyor-General's Office in 1866. He was associated with Colonel Tennant in observing the transit of Venus in 1874, and took above a hundred photographs of the solar disc while the planet was on it, besides five showing the egress of the planet from the sun. He contributed a paper containing the results of the photographic operations in connection with the observations of the transit of Venus at Runki, 9th December, 1874, printed

J. Waterhouse  
1874—

---

\* Major Waterhouse was General Secretary of the Society from 1872 to 1875.



an account of some experiments made by the author to ascertain the cause and extent of the apparent refining that takes place when an alligation containing fine silver and copper is melted, and of the further changes in the alloy during the processes of coining. In the following year, Colonel Tennant described a method, by which a portion of the weights of an English bullion set were compared and their values found in terms of a Standard Ounce, known in terms of the English Standard Pound. Colonel Tennant gave full details showing how the comparison and valuation can be systematically carried out in some cases, and how an exceptional case can be dealt with. Tables are given in an Appendix for reducing the results of weighings in air to what they would have been in a vacuum, and for determining specific gravities. The author also compares the advantages of several systems of weights, and discusses the best value of a standard weight, and describes the results he has arrived at, and by which he has been guided, in making a set of standard Tolah weights for the Mint.

### § 8.—*Mathematical Sciences of the Hindus.*

The Mathematical Sciences had been cultivated by the Hindus from very remote times. But the history of the progress and civilization of that nation closes with the end of the twelfth century. Every work that has the stamp of originality had been written before the close of that century. Bháskaráchárya, the last of the noble band of mathematicians which it is the glory of this country to have produced, completed his great work on Algebra, Arithmetic, and Mensuration about A.D. 1150. Since then, the degenerated Hindus, who, for want of better occupation, employed, or rather wasted, their time in inventing an infinity of absurd, frivolous stories about gods and goddesses, demigods and

*astronomers*, forgot the principles of their sciences which were thus reduced to mere arts practised by ignorant astrologers and needy physicians to earn a living. To rescue those sciences from oblivion was one of the noble objects which the Asiatic Society set itself from its very foundation to accomplish. The task was by no means an easy one. Though ample stipends were offered by Sir W. Jones to any Hindu astronomer who could name in Sanscrit all the constellations which he would point out and to any Hindu physician who could bring him all the plants mentioned in Sanscrit books, he was assured by the Brahmins whom he had commissioned to search for such instructors, that no *Pandit* in Bengal even pretended to possess the knowledge which he required.

A set of Hindu Astronomical Tables had been taken to Europe from Sam as early as 1687 by a Frenchman named LaLoubère. They passed from hand to hand as a sort of scientific curiosity until they were explained by Cassini, *one of the most eminent astronomers of his age*. Two more sets of tables were sent from Southern India by the Jesuit Missionaries about the middle of the last century. The best known and most important set, however, was one from Travancor on the Coromandel Coast, which was taken to Europe by M. Le Gentil, who visited India for the purpose of observing the transit of Venus in 1769. He communicated an account of these tables and of the astronomy of the Hindus to the French Academy in 1773. The subject was then most zealously taken up by M. Bailly one of the most distinguished mathematicians of his day, the contemporary of Laplace, Lagrange, and D'Alembert. He published his "*History of Astronomy from its origin to the establishment of the Alexandrian Schools*" in 1775, in which he stoutly maintained the antiquity and excel-

lence of the Hindu Astronomy. His great work, however, was his "History of Indian Astronomy," in which his views are more clearly expounded, and the subject treated more fully and in greater detail. That work appeared in 1787, a year before the publication of the first number of the *Asiatic Researches*.

The second volume of the *Researches* contains a paper by S DAVIS and Sir W. Jones Mr Samuel Davis, of Bhágalpur, on the "Astronomical Computations of the Hindus," and another by Sir William Jones "On the Antiquity of the Hindu Zodiac." Mr. Davis had procured a copy of the *Súryasiddhánta*, one of the most ancient of Indian astronomical works, and translated portions of it bearing upon the prediction of eclipses and other phenomena. Sir William Jones undertook in his paper to prove that the Indian Zodiac was not borrowed mediately or directly from the Greeks ; and that since the solar division of it in India is the same in substance as that used in Greece, both the Greeks and Hindus received it from an older nation, who first gave names to the luminaries of heaven.

Reuben Burrow, whose mathematical work has been noticed at the commencement of this chapter, was the first to attempt a translation of the Indian works on Algebra and Arithmetic. There is a very interesting article by him entitled "A Proof that the Hindus had the Binomial Theorem," in which he adduces evidence to show that the Hindus had a differential method similar to Newton's. The earliest notices of Indian Algebra and Arithmetic which reached Europe were from Burrow. He made a good collection of mathematical manuscripts, which he bequeathed to his friend, Mr. Dalby, of the Royal Military College, who communicated them to those interested in the subject in 1800.

In the second volume of the *Researches* is published an advertisement calling upon the learned Societies of Europe to transmit to the Secretary to the Asiatic Society "A Collection of short and precise queries on every branch of Asiatic History, Natural and Civil, on the Philosophy, Mathematics, Antiquities, and Polite Literature of Asia, and on eastern Arts, both liberal and mechanic; since it is hoped that accurate answers may in due time be procured to any questions that can be proposed on those subjects, which must in all events be curious and interesting, and may prove in the highest degree beneficial to mankind "

This advertisement led Professor Playfair, of Edinburgh,  
J Playfair  
1795 to submit a few questions and remarks relating to the Astronomy of the Hindus, in 1792. Two years previously he had read a paper before the Royal Society of Edinburgh, in which he declared himself a convert to M Bailly's views with regard to the antiquity of the Hindu Astronomy Notwithstanding the "most profound respect" he had for the "learning and abilities of the author of the *Astronomie Indienne*," he "entered on the study of that work, not without a portion of scepticism, which whatever is new and extraordinary in science ought to excite, and set about verifying the calculations and examining the reasoning in it with the most scrupulous attention The result was an entire conviction of the accuracy of the one and of the solidity of the other." In concluding his queries (published in the fourth volume of the *Researches*), Professor Playfair declares himself so deeply interested in the subject of Indian Astronomy, that he "would not lose even the feeblest ray of a light which, without the exertions of the Asiatic Society, must perish for ever "

In 1797, Mr. J. Bentley, one of the best mathematicians of the time in India, contributed some remarks "On the principal æras and dates of the ancient Hindus" In a subsequent paper "On the antiquity of the *Sûryasiddhânta*," published in the sixth volume of the *Researches*, he made instructive observations on the principles of the Hindu Astronomy and on the manner in which their cycles were formed, and exhibited useful formulæ showing their application in discovering the actual position of the heavenly bodies He, however, dissented from Bailly and Playfair, and threw doubts on the antiquity of Indian Astronomy. This led to a severe critique in the *Edinburgh Review*, and Bentley replied in the pages of the *Asiatic Researches* (Vol. VIII).

HENRY T. COLEBROOKE, perhaps the most cautious and erudite orientalist that England has produced, who combined in himself the double qualifications of a sound mathematician and a thorough oriental scholar, and who for some time occupied the presidential chair of this Society, now entered the field with a paper on the "Indian and Arabian divisions of the Zodiac," in which he maintains that the Arabs had adopted, though with slight variations, a division of the zodiac familiar to the Hindus. In the twelfth volume of the *Researches* appeared his Treatise "On the Notion of the Hindu Astronomers concerning the precession of the equinoxes and motions of the planets." These articles by Colebrooke are, according to Principal Mill, "the best correction to the extravagant notions of Indian antiquity, which the preceding speculations of Bailly and others had deduced from imperfect notices of the Hindu observations, and also to the crude and fanciful speculations with which Mr Bentley had unhappily adulterated some valuable and interesting calculations"





## CHAPTER II.

## GEOLOGY.\*

[§ 1. Preliminary. § 2. Stratigraphical Geology (a) Southern India — Voysey — Benza — Malcolmson — Newbold (b) Northern India — Voysey — Franklin — Coulthard — Hardie — Everest — Finnis — Spilsbury — Adam — Sherwill — Homfray — Oldham — Haughton — Hislop — Blanford — Godwin-Austen (c) The Himalayas — Herbert — Falconer — Everest — Hutton — Hay — Medlicott — Godwin-Austen — Verchère. (d) The Salt Range — Fleming — Theobald. (e) Burma, the Islands in the Bay of Bengal, &c. — Low — Blanford — Ball § 3. Dynamical Geology (a) Volcanoes and Earthquakes — Colebrooke — Halstead — Baird Smith — Asam Government. (b) Glacial Action — Hodgson — Batten and Manson — Weller — Mälden — Strachey — Godwin-Austen — Blanford — Campbell — Medlicott. (c) River-Action — Everest — Piddington ]

§ 1 — *Preliminary.*

It was in 1790, six years after the foundation of the Asiatic Society, that Werner propounded, to his pupils at Freiburg, his doctrine of 'Formations.' In the same year, William Smith, an English surveyor, published a "Tabular View of the British Strata," in which he proposed a classification of the secondary formations in the West of England, each marked by its peculiar organic remains. A most animated controversy was then being carried on in Europe between the followers of Werner (Neptunists) and those of Hutton (Vulcanists). "The two parties," in the words of Sir C. Lyell, "had been less occupied in searching for truth than for such arguments as might strengthen their own cause or serve to annoy their antagonists." And it

---

\* See Indices, pp xxvi—xlii, and lxxviii—xcii



§ 2 — *Stratigraphical Geology.*(a) *Southern India*

Dr Voysey was the father of Indian Geology. In 1818, H W Voysey he was attached as Surgeon and Geologist to the Surveying Party of Colonel Lambton. It reflects no little credit on the Honorable East India Company that they were only a few years behind the most enlightened Governments of Europe in undertaking the measurement of an arc and starting a geological survey.

Colonel Lambton and Dr Voysey were both very talented men. It is a remarkable coincidence, that not only did these pioneers of Indian Science work together, each in his own department, with unsurpassed energy and ability, but that they died in the same year, under strangely similar circumstances, both performing their onerous duties almost literally to the last moments of their lives.†

Voysey's first contribution was on the "Diamond Mines of Southern India." Though published in the fifteenth volume of the *Researches*, dated 1825, it was probably written about 1820. This paper contains, besides an account of the mode of occurrence of the diamond, a geological sketch of the Nalla Mala Mountains, situated between Kambham in the Cadapa district and Amrábád, a town in the province of Háidarábád, north of the Krishná. It has been asserted that he belonged to the Wernerian school. But he does not appear from his writings to have belonged to either school. With

---

\* See note above, p. 2

† The last words of the last journal kept by Dr Voysey, and published in the thirteenth volume of the Society's *Journal* are "Rocks of Cohapal. The same—micaschist with quartz veins. One specimen of quartz reminded me of axinite." After writing this he caught a fever, and was found dead in his *pallo* on its arrival at Howrah.

regard to the geological structure of the Nalla Mala Mountains, he says "It is difficult to understand, and it cannot be easily explained by either the Huttonian or Wernerian theories" Owing to the predominance of clay slate, he applied the name of "Clay Slate Formation" to the rocks of which the mountains are composed He gives an account of the mining operations as carried on in his time, and remarks upon the poverty of the miners who were all *Dhervs* or outcasts

After Dr Voysey's death in 1823, his numerous manuscripts came into the possession of the Asiatic Society, and were placed in the hands of some of the members of the Physical Committee, in order to be digested for publication, which was delayed, however, owing to an unseemly opposition from a professional artist, who appears to have given Dr Voysey a few hints in sketching "Dr Voysey's valuable collection," wrote this artist, "his writings, and my drawings have been seized upon by some calling themselves the Asiatic Society; they are about to publish a selection from his writings without consulting his friends, or making them any compensation" The Asiatic Society succeeded in getting over this difficulty; and Dr Voysey's Reports on the Geology of Háidarábád, written between 1819 and 1820, were given to the world in 1833, ten years after his death

Dr P M Benza, Surgeon to the Governor of Madras, contributed a paper on the Geology of the Nilgiris, which may be considered as the southern termination of the Western Gháts, here terminating in almost vertical precipices, and which rise abruptly from the table-land of Maisú in stupendous cliffs He considers the granitoid rocks, which form the highest hills of the group, as intrusive, and notices the basaltic dykes The

P M Benza  
1835

article, however, is mainly mineralogical, describing specially the different varieties of iron ore in the locality. Accompanying the paper is a note on some specimens from the Northern Circars, which Dr. Benza had sent to the Museum of the Asiatic Society. Amongst these was the highly fossiliferous Intertrappean Limestone (with oysters and other shells) of Rájamahendrí, now so well known.\*

Dr. Malcolmson, also of the Madras Medical Service, who

T G Malcolmson.  
1833—36.

was one of the earliest and ablest contributors on the Geology of India, and especially on that most interesting formation. the Deccan Trap, discovered, about 1832, fossiliferous Intertrappean Limestone in the Nirmal Hills, north of the Godávári, an account of which he furnished in a letter to the Society.† He notices the remarkable alteration of the limestone by the bursting through it of basaltic dykes. But the most remarkable part of the letter is his account of the Lonar Lake, which he had examined some years previously. He describes it as a "vast crater nearly 500 feet deep, and four or five miles round on the upper margin;" the water, "green and bitter, supersaturated with alkaline carbonate, and containing *silex* in solution, as well as some iron." Dr. Malcolmson had, in May 1833, forwarded to the Society's Museum a selection of geological specimens collected in May, 1833, between Háidarábád and Nágpur. In 1836, he furnished some notes‡ on these, in which he treats of the Geology of the metamorphic country between Háidarábád and the

---

\* This is the first notice of the limestone in question, that published in the *Madras Journal of Literature and Science* appeared two years later, in 1835.

† *Journal*, Vol. III (1834), p. 302.

‡ These notes were reprinted in *Madras Journal of Literature and Science*, Vol. IV (1836).



both problems of considerable interest in Indian Geology. He was the first to detect the occurrence of manganese veins in the latter. Brongniart, on the authority of M de Luc, had spread the idea in Europe, that the rounded blocks of granite around, and in the vicinity of, Háidarabád (Deccan) were truly erratic boulders. Captain Newbold, however, after a long and careful survey, the results of which were communicated to the Society in 1845, came to the conclusion that the blocks in question are *in situ* (since they invariably rest upon, or near, a granite of the same petrological character) and that they owe their globular and rounded form to concentric exfoliation. He did observe certain marks and furrows, but these could not be referred to glacier-action; and he found nothing which could not be explained by the action of existing subaerial agencies. In his Geological Notes on the South Mahratta country, he dwells on the Geology of the Sítádinga Hills, the plain of Bagulcata, the country between Kaladgi and the Falls of Gokak, and the tract between these Falls and Belgaum along the western slope of the Gháts. He then gives the geographical position and extent of the various rocks of the South Mahratta country, the extent of the Limestone and Sandstone rocks, the distribution of the Laterite, Kankar, Regur, &c, and winds up his valuable discourse with a classification of the rocks of the South Mahratta country as follows :—

Regur	}	1st Group [Tertiary].
Old kankar		
Laterite		
Laterite sandstone		
Overlying trap		
Basaltic greenstone	}	2nd Group [Devonian or Carboniferous ?]
Granite		
Sandstone		

Basaltic green-stone	}	3rd Group [Silurian or Cambrian ?]
Granite		
Hypogene schist		

The *Journals* for 1815 and the two succeeding years contain a number of other important geological contributions from the pen of Newbold. Of these some are mainly Mineralogical, and contain most accurate accounts of the gold tracts and of the mines of various other minerals in Southern India. "It may be said with truth," says Mr King,\* of Captain Newbold's researches, "that each paper is about the most clear and careful description of whatever it was intended to illustrate that has been given by any of the explorers of Southern India, whatever errors he has fallen into are almost all due to his not having been able to make a thorough investigation of the rocks .... In fact, it may almost be affirmed of Captain Newbold, that the only work incorrectly done, or not done at all, was such as could alone be accurately determined and settled by the continuous and systematic working of men trained to such investigations. He examined the rocks quite as closely for organic remains as we have done, and with equal non-success, lingering only over some peculiar minute spherical and oval bodies in an oolitoid silicious rock, and coming to the same doubtful conclusions, as we have been compelled to do, regarding their organic or inorganic structure"†

### (b) Northern India

The fifteenth volume of the *Researches* contains a paper by Dr Voysey on the Building Stones of Agrá, in which the sandstone, of which

W. Voysey  
1821

\* Memoirs Geological Survey of India, Vol VIII, pt 1, p 9

† The other contributors on the Geology of Southern India were Drs H Walker and A Christie (1811), and Messrs Schlagintweit (1855-56)



that city is built, is referred by him to the Old Red Sandstone formation. He regarded it as highly probable that the sandstone forms part of the great Sandstone Formation of India, the north-eastern boundary of which is formed by Fatepur-Sikri, Kalinjar, Machkund, Dholpur, Gwalior, Chunár, and Rotasgar—a most happy conjecture the correctness of which has since been well established by the officers of the Geological Survey.

In the eighteenth volume of the Society's *Transactions*,\* which, as observed before, is chiefly devoted to Geology, appear several long and elaborate Memoirs on the Geology of Central India.

Captain James Franklin explored a large portion of Central India, and described the great Sandstone Formation, now known as the Vindhyan, identified by him (though wrongly) with the New Red Sandstone of England. He also notices the great Triap Formation, which covers such an extensive area in the Deccan and on the Málwa plateau, and forms one of the most striking features in the Geology of India. This formation, as represented in the district of Ságár, is dealt with in detail by Captain C Coulthard, who describes its general appearance, petrology, &c.

---

\* It opens with some "General Observations on the Geology of India" by James Calder, Vice-President of the Physical Committee. He pays a fitting tribute to the memory of Voysey: "In the field of Geology," says he, "a steady progress has been made, which the superintending care of the lamented Voysey promised to ripen into a rich harvest, fatally, however for us, this ardent philosophic enquirer was a martyr in the cause to which he was devoted." [Mr. Calder's paper gives a succinct review of the information then available about the Geology of India and Ceylon. The distribution of that formation, the Laterite is carefully noted as well as the conifold occupancy, both of the River Damuda.]

Mr J. Hardie, of the Bengal Medical Service, also read a paper on the Geology of Central India, which was published in the second part of the eighteenth volume of the *Researches*. He classifies the rocks described by him under the heads of (1) Granite; (2) Gneiss; (3) Quartz rocks; (4) Micaceous Schist, (5) Chlorite Schist, (6) Talcose Schist, &c. The paper is chiefly mineralogical. Mr Hardie also contributed some geological remarks which he made in a march from Barodá to Udayapur.

The Rev R Everest, whose observations on the quantity of earthy matter brought down by the Ganges we shall have occasion to notice later on, and whose physical researches have been reviewed in the preceding chapter, described the Sandstone and Triap Formations west of Mirzápur between Ságar and the Jamuná.

Lieutenant Finnis brought before the Society, in 1829, a very fair Geological description of the country between Nágpur and Hoshangábád which was published in the third volume of the *Journal*. In it he divides the country into four parts according to the lithology of the rocks met with. He was followed by Dr. Spilsbury,\* of the Bengal Medical Service, who (1833) discovered important Mam-

---

\* The following is an extract from a Resolution passed at a meeting of the Council (see *Journal*, Vol XXIV, 1855, p 171) —“ Dr Spilsbury's merits were not merely those of a collector of fossils, in most cases he accurately defined and identified his specimens, and it was probably the want of necessary means of reference and comparison in a remote locality, and the innate modesty of his character that prevented Dr Spilsbury from giving to the world a full and complete account of his researches in a connected form. Dr Spilsbury's contributions have further been marked by as great liberality as zeal in behalf of the

malian remains in the Narmadá Valley. He contributed two Geological papers, one in 1834, and the other a few years later. In the former, the Valley of the Narmadá, from Tendukheri to the table-land of Páñchmári, is described; while the latter gives the results of Dr. Spilsbury's observations on the country between Brimhan Ghát to Amarkantak, the holy source of the Narmadá. Dr. J. Adam, also of the Bengal Medical Service, wrote on the Geology of the country previously traversed by Captain Franklin. The formations occurring there are classified by him into Granite, Trap, Sandstone, and Gravel; in the last of which the diamond-mines are stated to be situated.

J Adam  
1842

Captain W. S Sherwill, of the Revenue Survey, contributed important geological articles on the districts of Sháhábád and Behár, and gave, in the twentieth volume of the *Journal*, a highly interesting sketch of the Rájmahál Hills, containing valuable geological information. He was the first to examine the structure of these hills; and the conclusions arrived at by him were so sound, that they have been but little shaken by the subsequent detailed examination of the ground by the officers of the Geological Survey of India. The true position of the Sandstones as regards the Volcanic Rocks was pointed out by him. He also discovered the coal of the Chuparbhitá Pass, and described the known seams with accuracy.

W S Sherwill.  
1846—51.

---

Society The Council consider that they have served alike to enrich the Society's Museum and to advance the progress of science. On these grounds, they are of opinion that Dr Spilsbury is entitled to a public recognition of his services, and the Council propose that a subscription be entered upon among the members and the friends of science for a portrait of Spilsbury to be hung up in the Society's rooms."

Mr. J. Homfray's\* description of the Dámudá Valley is the first published account of the Rám-ganj field. It is accompanied by a map, in which the boundaries are laid down with tolerable accuracy. Mr Homfray shows the absurdity of the view which then prevailed as to the former connection of the Dámudá and Sylhet coal areas.

Dr Oldham, who was five times elected President of the Society, and whose bust graces their Meeting Hall, was a most active and zealous member of the Society. He had, as Director of the Geological Survey of Ireland, established a wide reputation in Europe before his arrival in India in 1851. He created the present Geological Survey of India. During the working season of 1852-53, he examined the Ráymahál Hills, and the results of his observations were communicated to the Society by the Government of Bengal. He came to the important conclusion, that the entire group of the coal-producing rocks of Bengal Proper (including the Dámudá, Ajaya, Rámgar, and Karharbári Coalfields) are quite distinct from the true coal measures of England, and belong to the same great geological era as the Oolites of Europe,—an opinion which, afterwards, as we shall presently see, he found reason to change. At the May meeting of the Society in 1856 Dr Oldham gave a résumé of the valuable researches of his talented and energetic colleagues in Central India. He proposed the name of 'Vindhyan' for the great Sandstone Formation of Northern and Central India, which had been referred by Voysey, and subsequently by Sherwill and others,

---

\* Mr Homfray was manager of Messrs Jessop and Co's Colliery at Náráyan-puri. In 1837 he was deputed by the Coal Committee to report on the coalfields of Palamow.

to the Old Red Sandstone ;\* by Franklin, to the New Red Sandstone ; and by Dr Carter, of Bombay, to the Jurassic Epoch, along with the coal-bearing strata of Bengal. He pointed out that, owing to the absence of organic remains, the Vindhyan could not be safely correlated to any of the great European formations, but that they might be Cambrian. Reposing unconformably upon the Vindhyan was a vast thickness of sandstones and shales with numerous plant fossils, which enabled Dr. Oldham to establish their identity with the coal groups of Bardwán, of Házáribág, and of Catak, which had previously been shown to be of Jurassic age. Resting unconformably upon these, there was found another series of very thick, often ferruginous sandstones, forming the Páñchmáří scarp, for which he proposed the name of *Mahádevas*. With regard to the Intertrappean beds, facts had been adduced by the Survey to show that their hardening was due to the subsequent overflow of igneous matter, and not to intrusive sheets of basalt, as advocated by some. He concluded his brief but pregnant remarks with a classification of the Rock Groups, which has since been but little altered. In May 1861, on the occasion of laying before the Society a collection of rocks and fossils from the vicinity of Sydney, presented by Sir William Denison, Dr. Oldham made some interesting remarks on the age of the Indian coal-bearing strata, which had been regarded by Hislop, Carter, and a number of other Geologists, as *all* referable to the Jurassic or Oolitic beds, without admitting of any separation into distinct groups or systems. He contended against this erroneous view, and brought forward the important results of the valuable researches of Mr W T. Blanford. Dr. Oldham

---

\* See *ante*, p 34

held out a prospect, that future investigations would establish an accurate parallelism between the rocks of India and those of Australia, portions of which were, even then, known to be synchronous ; and “ that, while in all probability it would be found that, starting from the common datum line of the coal-bearing rocks in either land, the sequence upwards would be established from Indian researches in this country, apparently supplying links wanting in Australia ; on the other hand, we should be enabled to supplement the evidence of the succession downwards (which is deficient in India), by a reference to Australian Groups ” No marine deposits in this country, of the same age as the ‘ Wollongong ’ Sandstones of Australia, had as yet been discovered, but he found nothing in the plant remains of the Talchir beds which would “ militate against their being of the same general age ”

Previous to 1857, rocks of the Cretaceous Epoch were known to occur in India only between  
R H Keatinge and  
T Oldham  
1858
Tichinopoly and Pondichery Dr Carter, in his “ Geology of India,” had ingeniously suggested, that the beautiful limestone, well known as the “ coralline limestone,” used at the now ruined city of Mádu, formerly the capital of Malwa, was derived from near Bág though he had wrongly assigned it to the Oolitic age Dr Oldham, during his tour in the Naimadá Valley in 1856, meeting Captain (now Colonel) Keatinge, Political Agent at Mandlesar, then the capital of British Nimar and a military cantonment, strongly urged him to visit the locality In 1856-57, Colonel Keatinge collected a large number of fossils, which established the Cretaceous age of the coralline limestone beyond question These were sent to the Museum of the Geological Survey, along with some notes, which were communicated to the Society by Dr Oldham

Colonel Haughton submitted his geological investigations in Singbhúm and the adjacent country in 1854

I O Haughton,  
1854

He was the first to detect the existence of two subdivisions of the Metamorphics, which he describes as (i) Gneiss passing in some places into Granite, and (ii) Schists, Slates, &c.

The Rev. S. Hislop,\* the well-known Missionary of Nágpur, contributed a short but well-

S Hislop  
1855.

digested paper on the age of the coal measures of Bengal and Central India, which he referred to the Oolite of Europe.

Mr Blanford, who joined the Geological Survey in October, 1855, and has lately retired after a distinguished service of twenty-seven

W T Blanford.  
1860

years, was President of the Society in 1878 and 1879, and is now an Honorary Member.† He was engaged in the survey of the Rániganj coalfield from 1858 to 1860, the results of which he laid before the Society. He arrived at the following classification in descending order correlative of the Rániganj beds :—

	Raniganj	Rajmahal	Orisa	Narmada Valley	Nágpur
1			Mahadevas	Mahadevas, Lametas	Mahadevas
2		Rajmahals			
3	Panchet { Upper Lower	Conglomerates }		{ Upper Damudas of Jabalpur }	Mau gh Shals
4	Damuda { Raniganj Series Ironstones L Damudas	L Damudas	L Damudas	L Damudas.	Damudas
5	Talchurs Talchurs		Talchurs	Talchurs	

\* He arrived at Nágpur early in 1845. He was accidentally drowned in crossing a river.

† The Wollaston gold medal, one of the earliest recipients of which was the distinguished Falconer, has this year been awarded to Mr Blanford by the Geological Society of London.

Colonel Godwin-Austen, late of the Topographical Survey, the well-known naturalist, described the geology and physical features of the Khási and Jaintiá Hills. The oldest rocks, the Metamorphic, were found by him overlaid by sandstones with seams of valuable coal, which had previously been referred to the Cretaceous period by Oldham. These sandstones are followed by Nummulitic limestones, succeeded at places by highly fossiliferous rocks of still younger age, the equivalents probably of the Siválík. The Lakadong Nummulitic coal is specially noted.

(c) *The Himálayas*

Captain Herbert was among the foremost pioneers of Indian Geology. "As a man of great talent and of sound and extensive scientific culture, he may stand with Captain Newbold, who did so much for the Geology of Southern India. The Mineralogical Survey of the Himálayan districts was one of the earliest attempts at a geological map of a considerable area made officially in India. The work was entrusted to Captain Herbert by the Marquis of Hastings. Captain Herbert\* does not assume any pretensions to authority. He tells us very plainly that he made up his Geology for the occasion, but it is plain, too, from his observations and reflections, that he thoroughly mastered his authors. His suggestions in correction of current views are often very judicious, and display a truly scientific turn of mind. . . . He divides all the rocks of the mountains into two great 'primary formations'—one for the Gneiss occupying the central region, and one for the Micace-

---

\* Captain Herbert's Report was published in the eleventh volume of the *Journal*



ous, Chloritic, Hornblendic, and Argillaceous Schists, to which also he joins the limestones. He makes a third zone of the narrow strip of secondary rocks, mostly, if not entirely, the Newer Red, or Saliferous Sandstone.”\*

Dr. Falconer† commenced his geological explorations among the Siválík Hills in 1831, a year after his arrival in India. Cautley and Herbert had found lignite in the sandstones which compose them. Captain Herbert, in his paper on the “Occurrence of Coal in the Indo-Gangetic Mountains,” published in the sixteenth volume of the *Researches*, considered these sandstones as forming part of an extensive secondary formation. It was in 1831 that Falconer inferred the Tertiary age of the Siválík formation, and placed it on the horizon of the *Molasse* of Switzerland. Three years later, Dr. Falconer contributed to the third volume of the *Journal* a brief account‡ of the geology and physical features of the Range, accompanied by a rough section exhibiting its relation to the Himálayas.

Dr. Gerard, whose geographical contributions will be noticed later on, was the first discoverer of fossil shells in the Spiti Valley. The Rev R. Everest contributed a memorandum on them in 1833; and two years later brought before the Society some observations which he had made on a journey from Masuri to Gangautri. He mentions the following formations in ascending order —

(1) Granite, (2) Gneiss and Mica Slate, (3) Talcose

\* Mr H B Medlicott ‘On the Geology of the Himálayan Districts,’ in the “N W P Gazetteer,” pp 112-113

† For Falconer’s Palæontological Researches see *infra*, Chap III, p 78

‡ The article is on the aptitude of the Himálayan Range for the culture of the tea plant, and will be found in the ‘Index,’ under Section VII

Gneiss and Tale-Slate . (4) Clay Slate ; (5) Masuri Limestone . and (6) Quartz Rock

Towards the close of 1837 Lieutenant Hutton proposed  
T Hutton  
1839-1841 to the Society to undertake with their  
 patronage and assistance an expedition  
 into the Spiti Valley in order to follow up the discoveries of  
 Dr Gerard by a geological examination of the country.  
 The Society warmly approved of the idea, and sanctioned  
 substantial pecuniary assistance. A long and interesting  
 account of his trip by Lieutenant Hutton was the result

Lieutenant Hutton was followed by Captain Hay, whose  
W C Hay  
1850 Report on the Spiti Valley contains some  
 note - worthy geological observations,  
 though they are vitiated, like those of Hutton, by ill-founded  
 theories and hasty generalisations

Mr H. B. Medlicott, Superintendent of the Geological  
H B Medlicott  
1861 Survey and twice President of the  
 Society has long been a most active and  
 earnest member. Formerly of the Geological Survey of  
 Great Britain, he joined the Geological Survey of India  
 in March 1854. In 1857, he began his examination of  
 the Himalayas, and, in March, 1861, communicated to the  
 Society an abstract of some of the principal results of that  
 highly important survey, which was concluded in the follow-  
 ing year (1862).

Captain R. Strachey, in his account to the Geological  
 Society in 1851, had left the massive sandstone at the base  
 of the mountains where Herbert had placed it in the Sal-  
 ferious period of the secondary era. Major Vicary's dis-  
 covery of nummulitic fossils at Subathu had been announced  
 in 1854. Falconer and Cautley had also paid almost exclu-  
 sive attention to fossils, so much so that their description  
 left it to be inferred that the fossiliferous beds of Nahan

overlay those of the outer hills. Mr. Medlicott reduced all this confusion to a more intelligible strategraphical order. He showed that the so-called saliferous sandstone of Kumáun corresponds at least in part to the Náhan sandstone, and that there is a great physical break between this latter and the newer Siválík rocks of the outer hills, and also between it and the older Tertiary rocks of Upper Sirmur (Vicary's Nummulitics).

Colonel Godwin-Austen, having heard of a field of coal  
 Godwin-Austen. near Santrabári, Bhután Duárs, went to  
 1865 the spot The geological results of the trip are contained in a paper published in the *Journal* for 1865. He found some lignite in sandstones overlaid unconformably by horizontally bedded conglomerates, but no coal. Two years later, he read a paper on the geological features of the country near the foot of the hills in the Western Bhután Duárs, in which he announced the discovery in the bed of the Dima River, a short distance west of Buxá, of the fossil molar of an elephant probably washed out of the conglomerates just mentioned. He expressed his opinion that "the elevatory force that has raised the Tertiary sandstones into the position they are found in along the whole base of the Himálayas, often to a height of nearly 3,000 feet above the sea, has here been extended in a less degree, and that they are to be sought for yet below the upper conglomerates, more or less deeply seated, at a short distance from the base of the hills."

In 1875, Colonel Godwin-Austen contributed a paper on the Geology of the Daffá Hills, in which he brought to notice certain beds on the Dikrang River, considered by him to be the representative of the Dámudá Series. Some recent river-terraces are described, as well as the alluvium of the Bisnáth plain

Dr A. M. Verchère, of the Bengal Medical Service, contributed a voluminous paper on the Geology of Káshmir, the Western Himálaya, and the Afghan Mountains. Previous to the Carboniferous, and probably during the Silurian Epoch, there existed, according to Dr. Verchère, in the centre of Asia (which was then probably a sea uniting the Arctic to the Indian Ocean), linear volcanoes, arranged in a direction parallel to the present general direction of the Himálaya, i.e., N.W. and S.E. Other linear volcanoes were directed from the N.E. to the S.W., where the Afghan Mountains now stand. Dr Verchère traces the geological history of the area described by him through the Mesozoic and Tertiary Epochs to prehistoric times. The fossils collected by him were examined by M. E. de Verneuil, the distinguished Palæontologist, who contributed a note on them.

(d) *The Salt Range*

Sir Alexander Burnes, in his paper on the Salt Mines of the Punjab, had given a few geological details, as had also Dr. Jameson, who was for some time Curator of the Society, in his report on the Indus Inundation, published in the twelfth volume of the *Journal*. Some mineralogical information is also contained in the itinerary papers by Agha Abbas of Shuáz, and Munshi Mohan Lál, both of whom explored under the patronage of Major Leech. But the geology of the Salt Range was first properly and systematically studied by Dr A. Fleming, of the Bengal Medical Service. In his first Memoir he describes the height and course of the Salt Range, the red sandstone conglomerate last seen on the Indus below Kálábág and supposed (though wrongly) to underlie the saliferous mud with gypsum and rock-salt, the variegated sand-

A. M. Verchère  
1866-67

A. Fleming  
1848-53

stones which come above the marl, superposed by fossiliferous calcareous strata. Above these last named beds he noticed a yellow marl followed by bituminous shales including seams of coal. The highest strata noted by him were those of a compact, fine-grained fossiliferous limestone with flints, described by him as Nummulitic. He gives mineralogical details about Gold, Coal, Iron-ore, Petroleum, Sulphur, Lead-ore, and Salt. In an Appendix, the alum manufacture of Kálíabág is described in detail. Dr Fleming's second contribution consisted of the diary kept by him of his trip to Pind Dádan Khan and the Salt Range, which was communicated by Sir H. M. Elliot, Secretary to the Government of India. In 1851, Dr. Fleming was placed in charge of the Geological Survey of the Salt Range, and had Mr W. Purdon, an able engineer, and Mr W. Theobald, late of the Geological Survey of India, as his assistants. His long and elaborate report published in the twenty-second volume of the *Journal* is almost exhaustive. The map which accompanies it, the first of the Salt Range executed from a regular survey, was prepared by the able assistants just mentioned. The Memoir opens with a description of the general physical features of the Salt Range. It then goes on to describe the various formations, in the following stratigraphical order :—

Devonian	{	<i>a</i>	Red Marl, with Gypsum and Rocksalt
		<i>b</i>	Lower Red Sandstone and Grits
		<i>c</i>	Micaceous Sandstone and Shales.
		<i>d.</i>	Variegated Sandstones, Grits, &c
Carboniferous ...	{	<i>a</i>	Lower Limestone, Calcareous Sandstone, and Shales.
		<i>b</i>	Grey Sandstone and Shales
		<i>c.</i>	Upper Limestone (sometimes Magnesian)
Oolitic	{	<i>a</i>	Quartzose Sandstones, Grits, and Shales.
		<i>b.</i>	Cherty Limestones, with Shales
		<i>c</i>	Belemnite Sandstone and Shales.

Eocene	{	Calcareous Sandstone, Nummulitic Limestone,
	}	Marls and Alum Shales, with Lignite.
Miocene (?)	.	Sandstones, Argillaceous Grits, Conglomerates, &c
Recent	..	Alluvium

Mr Theobald, late Deputy Superintendent of the Geological Survey of India, began his career as assistant to Dr McClelland in 1848, and retired from the service last year. He explored the Salt Range along with Dr Fleming, and brought together his observations before the Society in 1854. The Physiography of the Range is minutely described, and the stratigraphical geology of the area is treated of in the following order. —

<i>Formations</i>	<i>Thickness in feet.</i>
1. Red Marl and Gypsum with Rock-salt	1,500
2. Dark Red Sandstone	700
3. Dark Arenaceous Shales	250
4. Cuprifrons Purple Shales, &c	400
5. Sandstone, with Conglomerate Bands	700
6. Productus Limestone	1,100
7. Spotted Shales and Sandstones	600
8. Carbonaceous Shales, &c	80
9. Nummulitic Limestone	1,100
10. Nummulitic Limestone, Conglomerate, Ossiferous Sands, &c	10,000

(c) *Burma, Malay Peninsula, and the Islands in the Bay of Bengal*

Captain J. Low, of the Madras Army, contributed "Some Observations on the Geological Appearances and General Feature of portions of the Malayan Peninsula, &c;" in which the geology of Perak, Penang, Tenasserim, Tavoy and Martaban is described.

Mr. Blanford, in 1862, gave an account of the extinct volcano of Puppadoung in Upper Burma, in which he clearly established the fact of an active volcano having existed in Pegu during the deposition of beds of comparatively recent geological date

W T Blanford  
1862.

Professor Ball, late of the Geological Survey of India, who has been one of the most industrious members of the Society, and who acted as treasurer in 1881, has made numerous contributions to Natural History, among which are those on the Geology of the Nicobar Islands and of the vicinity of Port Blair. Dr Hochstetter had, in the "Records of the Geological Survey of India," given an account of the Nicobars; and Mr Ball's observations were chiefly confirmatory of those held by that distinguished geologist. The rocks which, in the Nicobars, determine the character of the soil were pointed out by Mr Ball to be :—

V Ball.  
1870

1. Coral rocks.
2. Magnesian Claystone, with Conglomerates.
3. Gabbro and Serpentine rocks.

In his second paper Mr. Ball describes the geological features of Ross Island, the southern coast-line of Port Blair, Mount Harriet, Viper Island, islands north-east of Port Blair, and of Narkandam Island. The article concludes with an enumeration of the useful products contained in the rocks of the Andamans — Coal, Serpentine, Iron, &c.

### § 3.—*Dynamical Geology.*

#### (a) *Volcanoes and Earthquakes.*

The earliest geological contribution to the Society's *Transactions* is a note on "Barren Island and its Volcano by Lieut R H. Colebrooke,"

R. H Colebrooke  
1795.

published in the fourth volume of the *Researches*. On the 12th of May, 1787, on a voyage to Pulo Penang, he saw a column of smoke ascend from the summit of Barren Island. By the help of his glasses he perceived the smoke to arise from a hill nearly in its centre, around which appeared an extensive valley. He quotes Captain Blau's description of an eruption which he had witnessed on the 21th of March, 77, about two months previously. It runs thus — "The volcano was in a violent state of eruption, bursting out immense volumes of smoke, and frequently showers of red hot stones. Some were of a size to weigh 3 or 4 tons, and had been thrown some 100 yards past the foot of the cone. There were two or three eruptions while we were close to it. . . . The base of the cone is the lowest part of the island and very little higher than the level of the sea."

Colonel Colebrooke concludes his note with some speculations which considering the time they were written (about 1790), are very interesting. Europe, as we saw before, was then being agitated by the disputes between the rival factions of the Neptunists and the Vulcanists. Colonel Colebrooke, like most other Indian Geologists, probably had no previous geological training, and certainly did not belong to either of these parties. "From the very singular and uncommon appearance of this island," he remarks, "it might be conjectured, that it has been thrown up entirely from the sea by the action of subterranean fire. Perhaps, but a few centuries ago, it had not reared itself above the waves, but might have been gradually emerging from the bottom of the ocean, long before it became visible, till at length it reached the surface. The cone or volcano would rapidly increase in bulk from the continual discharge of lava and combustible matter. . . . If this conjecture should gain credit, we may suppose not only many islands but a great portion



of the habitable globe, to have been thrown up by volcanoes, which are now mostly extinguished. . . . A ground-plan of Barren Island would so exactly resemble some of the lunar spots as seen through a good telescope when their shadows are strong, that I cannot help thinking there are also many more volcanoes in the moon than have yet been discovered by a celebrated modern astronomer." A sketch of the volcano accompanies the paper.

Edward Halstead, Commander of Her Majesty's Sloop

E. P. Halstead  
1841.

"Childers," contributed an elaborate report on Cheduba, in which a chapter is devoted to Geology. He mentions the fact of an elevation of the island having taken place within the memory of man, and of the extension of the elevatory movement over all the shoals and islands from the Terribles, off the north end of Ramri, to Foul Island. The movement in question has been about thirteen feet at the Terribles, twenty-two feet on various parts of the north-western reef of Cheduba, sixteen feet at the north point of the island, thirteen feet at the centre of the island on the west coast, twelve feet at the southern end, and from twelve to nine feet in the islands south of Cheduba as far as Foul Island. Commander Halstead met with a man, aged 106 years, who gave him an account of the elevation of Cheduba, accompanied by an earthquake, which had occurred when he was 15 years, *i.e.*, about 1751. "The earthquake was very violent, the sea washed to and fro several times with great fury, and then retired from the grounds, leaving an immense quantity of fish; the feasting on which is a favourite story throughout the island; no lives were lost, no rents in the earth occurred, nor fire from the volcanoes of the island." These, known as "mud volcanoes," were all visited. The larger volcanoes when in eruption, which is stated to take place during the rains,

are described as occasionally ejecting fluid mud, mixed with angular fragments of stone (to some of which small portions of copper ore are found attached) torn from the strata, through which the vent is forced

Colonel Baird Smith, of the Bengal Engineers, was the first to record and analyze the phenomena of Indian earthquakes. The first part of his long and admirable Memoir is a register of Indian earthquakes for 1842. An historical summary of known shocks, from 1803, with remarks on the general distribution of subterranean disturbing forces throughout India and its frontier countries, is given in the second part. Colonel Baird Smith then proceeds to give an analysis of the Indian earthquakes, and concludes with remarks on the points to be observed during earthquake shocks, and on the means of making the requisite observations. In 1845, he furnished a record of Indian and Asiatic earthquakes for 1843.

The earthquakes in Assam for 1839—43 were recorded by Captain Hannay, who was one of our most zealous contributors, and those from 1874 to 1880 by the Assam Government. Scattered through the pages of the Society's *Journal* are registers of various earthquakes in other parts of India.

S Hannay and Assam  
Government.  
1839—43 & 1874—80

### (b) *Glacial Action.*

Captain Hodgson, in his account of a visit to the source of the Ganges in 1817, published in the fourteenth volume of the *Researches*, describes the Ganges as issuing from under "a very low arch at the foot of the grand snow-bed," about a mile and-

I A Hodgson  
1822

a-half in width, with small hollows, and "the snow stuck full of rubbish and rocks imbedded in it" These *débris* are described as being supported in the snow, sinking as it sinks.

Mr. J. H. Batten, who was for some time resident in Kumáun, and was long one of our most zealous members, edited in the eleventh volume of the *Journal* Captain Manson's Diary of a trip to Milum and the Anta Dhura Pass. Captain Manson noticed at the source of the Gori River, about a mile north-west from Milum, "a mass of dark-coloured ice," covered with rock-fragments forming a succession of low hills. The bases of the hills on either sides are described as a succession of landslips: but from their distance, Captain Manson could not believe it possible, "that the *débris* in the centre of the snow-bed valley can have fallen there from the side hills. Lieutenant Weller, Executive Engineer in Kumáun, also visited this glacier on a visit to the Bulaba and Anta Dhura Passes

Captain E. Madden, of the Bengal Artillery, made an excursion to the Pinder (or Pindii) glacier in September, 1846, and contributed his observations in the form of a diary to the sixteenth volume of the *Journal*. But it was Lieutenant R. Strachey who first systematically studied the Himálaya glaciers. In May, 1847, he paid a visit to the Pindir and Kuphne glaciers, both in the Kumáun Himálaya; and an interesting paper was the result, in which he came to the conclusion, that "in the Himálaya, as in the Alps, almost every valley that descends from the range covered with perpetual snow has at its head a true glacier."

Lieutenant R. Strachey again visited the Pindir glacier in May, 1848, chiefly with a view to the accurate measurement of its motion: and the result of his operations was published in the seventeenth volume of the *Journal*. The mean motion of the ice in 24 hours is thus given in inches —

	On the lateral moraines	On the middle of the glacier
Lower part of the glacier	1 8	9 1
Upper part of the glacier	5 3	10 0

Colonel Godwin-Austen, in an article on the “Pangong Lake District of Ladak,” pointed out numerous instances of evident ice-action in the Káshmir territory. He detected traces of a glacial period even as low as the valley of the Jhelum at Baramúla. “When the glaciers extended down to 5 000 feet,” he remarks, “what must have been the appearance of the Upper Shyok, Indus, and Chang Chungmo, where 12 000 to 13 000 feet is the lowest level of the country. Contemplation of such a scene in the mind’s eye renders the formation of lakes and the accumulations of detrital matter a natural sequence very easy to imagine.”

In August 1875, he read a paper, in which he showed that on so low a latitude as  $25^{\circ} 30' N$ , glaciers of considerable dimensions must have once filled the valleys of the Bural Range, the main ridge of the Nágá Hills. He observed moraines at a height of 9,890 feet above the level of the sea, and met with huge transported blocks of sandstone, one of which measured 1 320 cubic feet, as low as 4,800 feet.

Mr. Blanford, in his account of a visit to the eastern and northern frontiers of Independent Sikkim,\* described traces of former glaciers

W. T. Blanford  
1871

---

\* See Geographical Index, p. lxxviii

which he had observed in the Upper Tístá Valley at between 5,000 and 6,000 feet, and especially noticed the great moraines of the Láchung and Láchén Valleys described by Dr. Hooker in his "Himalayan Journal."

Mr. Campbell, author of "Frost and Fire," while travelling in India, contributed some remarks on Himálayan glaciation. Between the Ganges and the Ravi, which included the Masuri Hills and the country to the north-west of Simla, he could find no evidence of glacial action, no "perched block," "hogbacked ridge," or rounded valley. He failed to detect even in the coarsest conglomerate any trace of an erratic boulderbed or anything approaching to a moraine. The great blocks so abundant in the Kángará Valley, which had been first brought to the notice of geologists by Mr. H. B. Medlicott, were attributed by him to river deposits.

The only direct evidence of presumed glaciation that came within the range of Mr. Campbell's immediate observations, were the great blocks of gneiss along the base of the Dhuládhár in the Kángará Valley within an elevation of 3,000 feet, which Mr. Medlicott had described in 1864 as probably due to glacial action. While pointing out that Mr. Campbell had overlooked the principal point upon which that opinion had been based, Mr. Medlicott indicated possible by-gone conditions in the Kángará Valley, whereby the position of the great boulders might be due to ordinary diluvial action as suggested by Mr. Campbell, but at the same time Mr. Medlicott insisted that the conditions aforesaid were presumably connected with a great former extension of glacial action in the Himálaya, probably contemporaneous with the Glacial Period.

(c) *River Action*

The Rev. R Everest instituted, in 1831, a series of experiments to ascertain the quantity of earthy matter brought down by the Ganges at Gházipur, the results of which laid before the Society in June, 1832, were :—

<i>Season</i>	<i>Average breadth in feet</i>	<i>Velocity in feet per hour</i>	<i>Cubic feet dis- charged per second</i>
Rains (4 months)	. 2,080	23,800	494,208
Winter (5 months)	. . 1,780	7,435	71,200
Hot weather (3 months)	1,730	7,445	36,330

The average quantity of solid matter suspended in the water during the 122 days of the rains was found to be  $\frac{1}{8}$ th part of solid matter by weight, taking the specific gravity of the water at one-half that of the dried mud, the solid matter discharged amounted to 577 cubic feet per second, giving a total of 6,082,041,600 cubic feet for the discharge in the 122 days of the rains

Mr Piddington,\* Curator of the Society's Museum of Economic Geology, gave, in 1854, a tabular statement of the quantity of silt held in suspension by the water of the Hughl at Calcutta for each month of the year 1842 Two years later, he contributed a far more elaborate series of measurements Tabular statements are given of the amount of silt held in suspension at the surface as well as at a mean depth of about three fathoms, by the waters of the Hughl at Calcutta, and at the mouth of the Hughl below Saugor Observations on the width, mean depth, sectional area, mean velocity per second, and discharge

---

\* *Vide ante*, p 15

per second, of the river, by Lieutenant-Colonel Goodwyn, Bengal Engineers, at Calcutta. and by Mr. A. Bedford at Mayápur, thirteen miles below Calcutta, and at the Jagahál Semaphore below Diamond Point, are also tabulated \*

---

\* It was originally intended to have a section on Mineralogical papers and notices, as historically they are highly important. But being mostly mere chemical analyses, their review would have required an amount of time and space, which, even if I had it at my command I would consider unnecessary, as they have been distinguished in the accompanying Geological Indices, so that the reader may pick them out and ascertain their nature with but little trouble

---

## CHAPTER III

## ZOOLOGY \*

[§ 1 Introductory I Vertebrata § 2 Mammals, Birds, Reptiles, and Amphibia — Hodgson — Falconer — Cutler — Baler — Durand — Blith — Tice — Blinford — Theobald — Godwin-Austen — Stoliczka — Anderson — Lydekker § 3 Fishes — McClelland — Blith — Carter — Day II Invertebrata — Benson and Hunter — Theobald — H F and W T Blinford — Godwin-Austen — G & H Nevill — Stoliczka — Wood-Mason — Marshall — Nicville ]

§ 1 — *Introductory*

SIR W. JONES was averse to zoological study. "Could the figure, instincts, and qualities," says he in one of his anniversary discourses,† "be ascertained either on the plan of Buffon, or on that of Linnæus without giving pain to the object of our examination, few studies would afford us more solid instruction, or more exquisite delight, but I never could learn by what right, nor conceive with what feeling, a naturalist can occasion the misery of an innocent bird, and leave its young, perhaps, to perish in a cold nest, because it has gay plumage; and has never been delineated, or deprive even a butterfly of its natural enjoyment, because it has the misfortune to be rare or beautiful." These are noble and humane sentiments. So feelingly and eloquently declared and by a man of Sir William Jones's position and influence, they no doubt tended seriously to discourage zoological research. As a consequence, we had none worth the name until the year 1828

---

\* See Indices, pp xciii and xciv

† Tenth Anniversary Discourse, *Asiatic Researches*, Vol IV



## I — VERTEBRATA.

§ 2 — *Mammals, Birds, and Reptiles*

In that year the systematic study of the Vertebrata of India was commenced by Mr. Bryan Houghton Hodgson, for many years Resident at the Court of Nepal, and perhaps the oldest Member of the Society now living. His contributions on the Bird and Mammalian Fauna of Nípal, Sikim, and Tibet, published in the *Researches* and the *Journal*, amount to no less than ninety. They are all characterized by "deep research and great acumen, and are very full in details of structure."

B H Hodgson.  
1829—48

At the June meeting of the Society in 1831, Mr. Secretary Prinsep read the following letter from Dr. H. Falconer, dated from Sáháranpur :—

Hugh Falconer.  
1831—59.

"SIR,—In No 3 of the *Journal of the Asiatic Society* [Vol. I, p 97], Mr Royle has announced the discovery by me of the fossil bones in the range of hills which skirts the valley of Dehra on the southwest. I regret that Mr. Royle did not confine himself to a simple announcement of the fact, without giving an extract from the letter in which it is mentioned. The communication was made immediately after I had met with the fossils, and was an unguarded expression to an intimate friend of what I imagined them to be, and not an opinion intended for a public journal in the *ipsissima verba* of the letter. Beyond, therefore, the fact of fossil bones occurring in these hills, I do not wish to stand responsible for any opinion regarding their specific determination in the present imperfect state of the inquiry. As yet they have been found in a small quantity only, and consist of a few fragmented portions of bones. The lignite occurs in great abundance. The "fragments of the shells"

(not the 'skull' as stated in the *Journal*) of tortoises resemble those found by Mr. Crawford and Dr. Wallich on the banks of the Irrawaddy, and others contained in the Museum of the Asiatic Society. The "fragment of a bivalve shell" is very imperfect, and therefore very questionable.

"I conceive it necessary to state that Lieut. Cautley, Superintendent of the Doab Canal, is the original discoverer of fossils in these hills. The most perfect portion I have yet seen of these fossil bones has been in his possession several years, without, however, his being aware of its nature'.

This is the earliest published communication from the pen of Dr. Falconer, and the first on those grand discoveries which have immortalized his name and added so much to the fame of the Asiatic Society. Brief as the communication is, and though it was written at the early age of twenty-two, it shows admirably that caution and that spirit of scientific research which characterize the subsequent writings of that truly great man. He was cautious almost to a fault, and never committed himself to an opinion until he felt quite sure about it. "And thus," remarks his biographer, "as too often happens under such circumstances, he constantly deferred publishing his views, and others reaped the credit of observations originally made by him." Superficial people, who measure the energy of a man by the amount of his published writings without regard to their quality, have brought the charge of idleness against Falconer. He was certainly not a voluminous writer, but whatever he wrote are models of what scientific papers should be.

Dr. Falconer arrived in Calcutta as an Assistant Surgeon in the East India Company's service, in September, 1830. He at once undertook an examination of the fossil bones from Ava in the collection of our Society, and communicated a short

paper on them, which was published in the third volume of "Gleanings in Science." While at Mirat, to which station he was ordered early in 1831, he made the acquaintance of Dr. Royle, then Superintendent of the Botanical Garden at Sáháranpur. The acquaintance developed into friendship; and on the retirement of Dr. Royle in 1832, Falconer succeeded him in charge of the garden. He was then only twenty-three.

At that time three eminent Engineers, whose names stand foremost in the early history of Indian Irrigation, Sir (then Captain) Proby Cautley, Sir (then Lieutenant) William Baker, and Sir (then Lieutenant) Henry Durand, were engaged on the Jumna Canals, the heads of which are close to Sáháranpur. A friendship sprang up between Falconer and Cautley, and their names are henceforth linked together in connection with the Siválík Fauna, as are those of Baker and Durand.

On the 16th of November, 1834, Lieutenant Baker sent to the Secretary of the Asiatic Society a sketch of a fossil elephant's tooth, which had been presented to him by the Rájá of Náhan. Having heard of the tooth, Falconer made inquiry, and had a fragment of a similar tooth presented to him also. He says, in a letter to the Secretary dated Masuri, 3rd January, 1835 :—

"I got a hint where they [the teeth] came from, and on going to the spot, I reaped a splendid harvest. Conceive only my good fortune; within six hours, I got upwards of 300 specimens of fossil bones. This was on November 20th, a couple of days after Lieutenants Baker and Durand had got their first specimens through their native collectors."

The nineteenth volume of the *Researches* contains Memoirs by Falconer and Cautley on the *Swatherrum Giganteum*, the *Felis Cristata*, and the *Ursus Sivalensis*, and on fossil species

of the camel and the hippopotamus. In the same volume is published also a paper on "The Hippopotamus and other Fossil Genera of the Sub-Himálayas in the Dádupui Collection" by Lieutenant DuRAND.

The discoveries near the valley of Markunda were enthusiastically followed up by similar ones in other parts of the Sub-Himálayan Range, and the fourth, fifth, and sixth volumes of the *Journal* are rich in contributions on the remarkable fauna thus brought to light by Messrs. Falconer, Cautley, Baker, and DuRAND. Unequalled for richness and extent in any other region then known, the fossils created no little sensation throughout the scientific world. The Wollaston Medal in duplicate was awarded in 1837 to Dr. Falconer and Captain Cautley by the Geological Society; and the learned Societies of Europe and America hastened to mark their appreciation by the bestowal of appropriate honours. Sir Charles Lyell announced the award of the Geological Society in terms which must have been no mean incentive to young Falconer—for he was at the time under thirty. "When," remarked Sir Charles, "Captain Cautley and Dr. Falconer first discovered these remarkable remains, their curiosity was awakened, and they felt convinced of their great scientific value, but they were not versed in fossil osteology, and being stationed on the remote confines of our Indian possessions, they were far distant from any living authorities or books on comparative anatomy to which they could refer. The manner in which they overcame these disadvantages, and the enthusiasm with which they continued for years to prosecute their researches, when thus isolated from the scientific world, are truly admirable."

From 1813 to 1847, Dr. Falconer was in England, engaged in the determination and illustration of the Siválík fossils in the British Museum and the East India House.



earnestness by another eminent zoologist. Even before his departure for India to be Curator of the Society's Natural History Museum, Mr Blyth had made his mark in England as an ardent student of zoology. On his arrival here, he set himself to the performance of his duties with characteristic zeal and devotion, which were more than once acknowledged by the Society, but it was his devotion to the cause of science that mainly supported him in his twenty-two years' hard work in a tropical climate and at an inadequate remuneration. His work was the work of love; and it is such work alone that keeps one up—as it certainly did keep up Blyth—in the midst of struggles and difficulties.

As Curator, Blyth was required to furnish monthly reports. Besides these, each of which occupies from fifteen to twenty pages, his contributions to the *Journal*, mostly on Reptiles, Birds, and Mammals, amount to no less than forty. His Catalogue of Birds in the Asiatic Society's Collection was published in 1849, and that of Mammalia in 1863. The last sheets of the latter work were seen through the press by his friend, Jerdon. Twenty-one years of incessant work—and not a little of it was pure drudgery—had seriously affected Blyth's health, and in the summer of 1862, it broke down so completely that he was compelled to retire and proceed to England. During the last three years of his life there, he was engaged in the preparation of a catalogue of the Mammals and Birds of Burma at the request of Sir A. Phayre. He did not live to publish it; and it was printed by the Asiatic Society as an extra number in 1875, two years after his death, with a biographical notice by Mr Grote and a portrait of the author.

Darwin frequently quoted Blyth as an "excellent authority," and Gould refers to him as "one of the first zoologists of his time." Blyth was certainly the founder in

this country of a school of what may be called field-zoologists. The active correspondence he kept on with the sportsmen-naturalists—most of the zoologists in India are such—in various parts of the country, and his elaborate notices of the presentations which were made by them to the Society, not to speak of his numerous Memoirs, “contributed an impetus to the study of natural history that has done more to its extension in India than all the previous publications”

Since the time of Blyth, the scientific contributions received by the Society have been mainly zoological. Foremost among his successors stand the names of Jerdon, Blanford, Theobald, Tickell, Godwin-Austen, Dobson, Brooks, and Tytler, whose contributions enrich the pages of the *Journal* for the last twenty years.

Colonel S. R. Tickell was one of the pioneers of Indian Ornithology. As early as 1833, he presented the Society with a list of Birds collected by him in the jungles of Barabhum and Dholbhum. His contributions on Birds, Reptiles, &c, extend down to 1865.

Mr. W. T. Blanford\* has long been a most active contributor. Wherever he has been—and his duties have carried him to various parts not only of Asia, but also of Africa—he has most zealously collected the Mollusca, Reptiles, Birds, and Mammals of the locality, and described them for the Society. His numerous papers on these branches of Zoology are characterized by that ability, judgment, and thoroughness which mark his equally, or perhaps still more, numerous geological researches.

Mr. Theobald† will be long remembered for his valuable contributions to the Herpetology and Malacology of India and Burma. The

S R Tickell  
1838-65

W T Blanford  
1868—

W Theobald  
1866—.

\* See above, Chapter II p 40.

† *Ibid*, p 47.

latter will be noticed later on, with regard to the former his most important works are his Catalogues of the Reptiles. The first of these is his "Catalogue of Reptiles in the Museum of the Asiatic Society of Bengal," which was published as an extra number to the *Journal*, Part II for 1868.

Colonel Godwin-Austen, whose geological work was reviewed in the last Chapter, described and catalogued the Birds collected by him in various parts of Assam for the Society in a number of highly valuable papers.

Dr. G. E. Dobson, of the Netley Hospital, author of the "Monograph of the Asiatic Chnoptera," communicated a number of articles on the *Chnoptera* in the Society's *Journal* for 1871. He is one of the highest authorities on that order of the Mammalia; and his descriptions are thorough and accurate.

That accomplished naturalist, the late lamented Stoliczka, who held the Natural History Secretaryship for over five years, contributed several important papers which comprise nearly all the classes of the Vertebrata, and several of the Invertebrata, which latter will be noticed in the next section.

The mantle of Blyth fell on Dr. J. Anderson,\* the present accomplished Superintendent of the India Museum. In 1871, he contributed a paper on 'Reptilian Accessions to the Indian Museum from 1865 to 1870, with a description of some new species.' The *Journal* for 1877 contains his descriptions of some new and little-known Asiatic shrews in the collections of the Indian Museum, and that for the following year a monograph on the Indian species of the *Erinaceus*.

---

\* Dr. Anderson was Natural History Secretary of the Society from 1865 to 1867.



The pages of the *Proceedings* also contain descriptions by Dr. Anderson of various new or little-known Vertebrate forms

To Mr. R. Lydekker, late of the Geological Survey of India,

R Lydekker  
1877—

an accomplished Comparative Anatomist.

who acted for some time as Natural History

Secretary, the Society is indebted for a number of contributions, among which is his "History of the Fossil Vertebrata of India"

### § 3.—*Fishes.*

Dr. M'Clelland's Monograph of the Indian *Cyprinidæ*,

J M'Clelland and T  
Cantor, E Blyth, and  
F Day

published in the second part of the nine-

teenth volume of the *Researches*, laid the

foundation of the study of the Fishes of

India. The next important contributor on the subject was

Dr. Cantor, of the Bengal Medical Service, whose "Catalogue

of Malayan Fishes" was published in the *Journal* for 1850

Mr E. Blyth was the author of several interesting papers on

the Fishes of India, Pegu, Port Blair, &c., printed in the

*Journal* for 1858, 1859, and 1860 The last and best known

writer is Dr. F. Day, the author of two handsomely illustrated

volumes on the "Fishes of India" His articles were com-

municated between 1870 and 1872 Of these the longest

and most important is his Monograph of the *Cyprinidæ*

printed in six parts in the *Journal* for 1871 and 1872

## II —INVERTEBRATA

Mr W H Benson and Lieutenant T Hunter were the

H. Benson and T  
Hunter  
1830—55

earliest contributors on the Land and

Freshwater-Shells of India. Their nu-

merous papers are scattered through the

pages of the "Gleanings in Science" and the *Journal* of

the Society for a quarter of a century, from 1830 to 1855

In 1857-58, Mr Theobald commenced a highly impor-

W Theobald  
1857—

tant series of papers on the Land and

Freshwater-Shells of Burma and India,

which were continued with but little intermission down to 1881.

In 1860, Mr W. T. Blanford, in conjunction with his brother, Mr H F Blanford, contributed the first of a series of Malacological contributions. The second of the series appeared under their joint authorship in the following year, and henceforth the articles were continued by Mr. W T Blanford till 1880, when the twelfth and last of the series appeared. Besides the Mollusca contained in these papers, Mr Blanford has described many more from India, Burma, and Ceylon.

Colonel Godwin-Austen has presented the Society with a series of valuable descriptions of the Shells collected by him in Assam.

All these writers confined their attention to Land and Freshwater Mollusca which they had mostly collected themselves on survey expeditions. To Messrs H and G Nevill, especially to the latter, we are indebted for accurate descriptions of a number of marine and estuarine Mollusca.

The distinguished writers, whose work we have just noticed, wrote mainly upon Mollusca and almost exclusively upon the *shells* or then solid parts. It was in 1869 that Ferdinand Stoliczka first commenced in this country the systematic study of the Anatomy, Physiology, and Morphology of the *animal*, not only of Mollusca, but of other Invertebrata. He was a zoologist of the new school—a laboratory-zoologist. Even before he joined the Geological Survey of India in 1862, he had established a reputation as naturalist and geologist in connection with the Imperial Geological Survey of Austria. As Palæontologist to the Indian Survey, his work on the Cretaceous Fauna of Southern India testifies

nobleman at the head of an Indian Government, in his time very considerable, and that he fully discharged all the duties of his important station, while he found leisure to compile those twelve large volumes, which Linnæus himself pronounces *accurate*."

Sir William Jones describes the plants under their Sanscrit names, and gives the vulgar and Latin names as synonyms, and he was fully persuaded that Linnæus himself would have adopted the same plan had he known the learned and ancient languages of this country.

The foundation of the Botanic Gardens at Calcutta in 1786, and those at Sâhâranpur in 1823, and the munificent patronage which was early accorded to Botany by the Court of Directors of the East India Company, removed that science from the special care and attention of the Society; and when the Physical Committee was formed (or rather revived) in 1828, Botany was excluded from the objects of their research. The explanation of this exclusion is contained in the following passage from the introductory paper of Mr J. Calder, published in the first part of the eighteenth volume of the *Researches*:—

"In the colonial possessions of other nations, the whole field of nature has been explored and described by scientific and enlightened travellers: whilst in India it has been almost entirely neglected with one splendid exception, in which the munificent patronage of the East India Company has enabled a distinguished member of our Society to make magnificent discoveries in the Vegetable Kingdom. May we not hope that the same patronage may be extended to other departments of Physical Science, and that as Indian Botany has found its Linnæus, we may yet see the treasures of the Animal and Mineral Kingdoms unfolded to us by a Humboldt and a Cuvier."

William Roxburgh was this "Indian Linnæus" He first reduced the plants of the East to the form of a flora, and was appointed Superintendent of the Calcutta Botanic Gardens in 1793, which office he continued to fill until 1814, when he went home and died at Edinburgh in April, 1815 He was a most active member of the Society, and was for many years a member of the Committee of Papers. His contributions to the Society, though few, were most valuable, especially his descriptions of the Indian *Cannaceæ*

W Roxburgh  
1793—1814

Dr N. Wallich, a Dane, who came to India as Surgeon of the Danish settlement of Serámpur, was taken prisoner when that place was captured by the English His reputation as a botanist, however, induced the Government not only to liberatê him, but place him in charge of the Botanic Gardens in 1815. In 1820, appeared in the thirteenth volume of the *Researches* his descriptions of rare Indian plants, which were afterwards developed into his grand work, The "Plantæ Asiaticæ, Rarioræ," in three folio volumes with three-hundred coloured plates, published by the East India Company in 1832

N Wallich  
1815—1833

William Griffiths, one of the most distinguished botanists of the age, arrived at Calcutta as Assistant Surgeon in 1835 That very year he presented the Society with descriptions of several interesting plants, published in the nineteenth volume of the *Researches*, and was at once appointed to accompany Dr. Wallich to Assam He explored the country between Sadiyá and Árá, making magnificent collections of plants and animals; and contributed several important botanical papers on the flora of that country to the sixth and seventh volumes of the *Journal* He

W Griffiths  
1835—38

traversed the Bhután country as Surgeon to Pemberton's Embassy, and subsequently joined the army of the Indus in a scientific capacity. He went to Malacca at the end of 1847, and there died early next year.\*

Dr. J. D. Hooker, Honorary Member of the Society, while on his memorable visit to this country, contributed two papers, one entitled "Observations made when following the Grand Trunk Road across the hills of Upper Bengal, Paresnáth, &c, in the Sôn Valley, and on the Kymore Branch of the Vindhyan hills;" and the other, "Notes chiefly Botanical, made during an excursion from Darjeeling to Tonglo, a lofty mountain on the confines of Sikkim and Nepal"

Dr. T. Thomson, who, in conjunction with Dr. Hooker, began the "Flora Indica," contributed in 1856 "Notes on the Herbarium of the Calcutta Botanic Garden," of which he was the Superintendent, with special reference to the completion of that grand work, which, however, was never completed, owing to the refusal of the Court of Directors to give any assistance

\* The following letter of condolence was addressed to Mrs Griffiths —

MADAM,—I am directed by the Asiatic Society of Bengal to express its deep and heartfelt condolence with you for the irreparable loss which you have sustained

The Asiatic Society had not been inattentive to the great scientific ability, untiring zeal, and thorough disinterestedness of the late Doctor Griffiths, and it looked forward to the day when, had it been so permitted, he might have been associated, and that in a position worthy of him, to the labours of its members, in aid of which he had already contributed so valuably and ably

This hope no longer exists, but the Asiatic Society have deemed it right to express how deeply it mourns in common with the scientific public of India and Europe the loss of one from whose labours so much had already resulted and more was hoped for

(Sd) H TOPPERS

MUSEUM, }  
The 7th Nov, 1845 }

Vice-President and Secy Asiatic Society of Bengal

To Dr. T Anderson, who succeeded Dr. Thomson at the Calcutta Gardens, we are indebted for two valuable articles, *viz.*, "Notes on the Flora of Lucknow, with Catalogues of the cultivated and indigenous Plants ;" and "The Flora of Behar and the mountain Paresnathi, with a list of the species collected by Messrs Hooker, Edgeworth, Thomson, and Anderson" Mr M P Edgeworth, who was an active contributor for ten years, from 1842 to 1852, did much for the promotion of Botanical Science in India

T Anderson  
1859-63

M P Edgeworth  
1842-52

### § 2 — *Burmese Flora.*

Sulpiz Kurz came to Calcutta as Curator of the Herbarium of the Botanical Gardens early in 1864. He became a member of our Society in 1869, and in 1872 began in the forty-first volume of the *Journal* that series of highly valuable papers on the Burmese Flora, the last of which appeared in 1877, a few months before his death. These researches formed the most important work of his life, which "has placed the name of Kurz in the first rank of Indian Botanists"

S Kurz  
1872-77

### § 3 — *Palæo-Botany*

The fossil floras of India were first systematically investigated by Dr. O Feistmantel, the accomplished Palæontologist to the Geological Survey of India. In 1876, he presented us descriptions of a number of plants from the Dámudá series, the richest and most important of the Gondwáná system

O Feistmantel  
1876

A few years later Dr Feistmantel contributed an able résumé of his valuable work in connection with the Flora and Fauna of the whole of the Gondwáná system. The fossils, the great majority of which are plants, are enumerated in biological order, with their range in space and time

## CHAPTER V

## GEOGRAPHY.\*

- [§ 1 The Himalayas — R H Colebrooke — Webb — Raper — Moorcroft — Gerard — H T Colebrooke — Herbert — Csoma de Koros — Baron Hugel — Cunningham — H Strachey — R Strachey — Campbell — Hodgson — Montgomerie — P S Sherwill — J L Sherwill — W F Blanford — Nain Sing    § 2 Assam and the North-Eastern Frontier — Wilson — Hannay — Grange — Bigge — Yule — Peal    § 3 Burma, the Islands in the Bay of Bengal, China, &c — Hannay — Richardson — McLeod — Des Granges — Foley — Tickell — Williams — Louis — Newbold — Colebrooke — Fontana — Barbe    § 4 Southern India — Stirling — Kittoe    § 5 Western India and the North-Western Frontier — E De la Hoste — Postans — Leech — Falconer — Montgomerie — Obbard — Pratt — W T Blanford — Fenwick    § 6 Afghanistan and Central Asia — Burnes — Wathen — Vigne — E Conolly — A Conolly — Gardiner and Edgeworth — Raverty — Waterhouse.]

§ 1 — *The Himálayas*

ONE of the most interesting geographical problems at the commencement of the present century was the position of the source of the Ganges. All that was known of the Upper Himálayas and Tibet at the time was derived from Chinese authorities through Jesuit missionaries. 'As early as the beginning of the eighteenth century, a map of Tibet had been constructed by persons in the retinue of a Chinese Ambassador to that country, and was given to Father Regis, one of the missionaries at Pekin. He pointed out its defects; and the Chinese Emperor, resolved to have one more accurate, deputed two Lamas to Tibet, who had studied arithmetic and geometry in a Chinese college, with instructions to prepare a map of the country from Sinning.

---

\* See Index, pp lxxi

to Lhásá, and thence to the sources of the Ganges. The map which they executed was placed for examination in the hands of the Jesuit missionaries in 1717, and, based chiefly on it, the latter prepared a map of Tibet, which is published in Du Halde's description of China.

Anquetil du Perron, who showed good grounds to reject the authority of the Lamas for the sources of the Ganges, published in 1784 the result of the geographical researches of Father Tieffenthaler, a Jesuit missionary in India. But though Tieffenthaler delineated the course of the Sarayu from the lake of Mánassarovara to the plains, and that of the Ganges to Gangauti, his conclusions were not based upon personal observations; and the question of the source of one of the largest rivers in the world still lay involved in considerable doubt and uncertainty. An actual survey of the Ganges above Haridwar, where it enters British territory, to the farthest accessible point, was necessary, and the man who now guided the operations of the Geographical Departments at Calcutta took up the idea most warmly.

R. H. Colebrooke  
1803—1810

Colonel R. H. Colebrooke, whose astronomical and geological observations we have noticed already, became Surveyor-General in 1803. He had in 1795 contributed to the *Researches* papers on the Andaman Islands and the islands of Nancowry and Comarty, and in 1801, one on the course of the Ganges through Bengal. In 1808, he obtained the sanction of the Government for an expedition to the source of the Ganges. But while making preparations for his journey, he was seized with a fatal illness; and the execution of the enterprise devolved upon his assistant, Lieutenant Webb, who was accompanied by Captain Raper and Captain Hearsay. The journal of Captain Raper and a

Lieutenant Webb and  
Captain Raper  
1810



summary of the results of the survey by Lieutenant Webb are published in the eleventh volume of the *Researches*, prefaced by an historical introduction from the pen of H. T. Colebrooke, the orientalist, a kinsman of the Surveyor-General. This enterprise was followed up with indefati-

W Moorcroft  
1812

gable perseverance by Moorcroft, who, accompanied by Heavisay, visited in 1812

the western shores of the celebrated lake Mánassarovara in which the Ganges was long supposed to take its rise. The country had never before been explored by any European ; and Moorcroft's "Journey to Mánassarovara, in Undes," published in the twelfth volume of the Society's *Transactions*, first supplied accurate information regarding it. He established the fact that the lake does not give origin either to the Ganges or any of the other rivers reputed to flow from it

Dr. Gerard followed Moorcroft, and ascended the Spiti Valley. He crossed various ridges at elevations between 15,000 and 16,000

J G Gerard  
1833

feet, and found the snowy zone to be of great breadth, and, instead of being a single line of peaks, to present consecutive ranges. His geographical and ethnological observations on the Spiti Valley are recorded in a paper published in the second part of the eighteenth volume of the *Researches*.

The great height of the Himálayas had long been suspected, but upon insufficient evidence.

H T Colebrooke  
1816

In 1816, H. T. Colebrooke brought together all the observations that had been made on the subject up to that date in a paper "On the Height of the Himálaya Mountains," which set all doubts at rest

At the conclusion of the Nepál war, Captain Hodgson and Lieutenant Herbert were appointed by Lord Hastings to survey the Himá-

J D Herbert  
1815—20

lavas between the Satlaj and the Ganges; and Captain Webb to continue the survey through Kumáun. Some of the results of these important operations were given to the world through the Asiatic Society. In 1819, Captain Herbert penetrated as far as Shupki in Chinese Tartary, and presented an interesting account of his journey, which was printed in the fifteenth volume of the *Researches*. Herbert was the first geographer who attempted a detailed and systematic account of the physical geography of the Himálayan region and the country beyond; about the latter, however, his information was most imperfect. Humboldt had not yet undertaken his Asiatic Expedition, and his "Fragmens Asiatiques" and "Asie Centrale" appeared long after the conclusion of Herbert's geographical studies. He was struck by a large central space in the map of Asia, which is strongly marked by the circumstances of being but little intersected by rivers, while numerous streams flow from it on every side, and unite to form some of the largest rivers of the world; and inasmuch as the source of every river must be higher than any other part of its course, he inferred, that the zone in which these rivers originate is higher than the plain through which they flow to seek the ocean. But he clearly saw at the same time, that the line of water-parting is by no means synonymous with the line of greatest elevation. "It may be," says he, "that the central tract is not of such great elevation as has too hastily been presumed."

Herbert's observations on the physical geography of the Himálayas were published by the Society in 1842, nearly ten years after his death, under the title of a "Report of the Mineralogical Survey of the Himálaya Mountains." In this admirable Memoir, Herbert speculates "upon the relation between the height of the sources

of rivers and the length of their courses, and gives a most interesting account of the Duns, the parallel chain of the Siválks, the forest belt at their bases, and the Terai region beyond."

The first volume of the *Journal* has a short but excellent geographical notice of Tibet from the pen of that distinguished Hungarian traveller and scholar, M. Alex. Csoma de Kőrös. It treats of the different provinces of Tibet, its lakes, glaciers, mines, medicinal waters, &c.

Baron Hugel explored Káshmir in 1835, shortly after Jacquemont, and placed the main results of his researches before the Society in a short paper published in the fifth volume of the *Journal*.

General A. Cunningham, the illustrious Archæologist, who was elected an Honorary Member of the Society in 1868, has enriched the pages of the *Journal* with several valuable contributions on Himálayan geography. In August and September, 1846, he penetrated to the Chu Mureri Lake in Ládák, passing through Kulu and Lahul. An account of the trip in the form of a diary appeared in the *Journal* for 1848.

While Cunningham was exploring Ládák, Lieutenant H. Strachey was engaged in a most arduous enterprise—a trip to Rakas Tal and Mánassarovara, and the valley of Pinang in Nári-Hundes, a detailed narrative of it was given to the public in the second part of the seventeenth volume of the *Journal*.

On the data furnished by Webb, Gerard, Herbert, and Moorcroft in the papers alluded to above, R. Strachey Von Humboldt arrived at the conclusion, that the limit of perpetual snow on the southern declivity

of the Himálayan chain is 13,000 feet above the sea-level; while his investigations on the northern declivity, on the peaks which rise above the plateau of Tartary, led him to fix then limit at 16,600 feet,—the difference being attributed by him to the result “conjointly of the radiation of heat from the neighbouring elevated plains, the serenity of the sky, and the infrequent formation of snow in very cold and very dry air” In April, 1849, Lieutenant R. Streachey submitted some valuable remarks on the Snow-line in the Himálayas between the north-western portion of Nepál and the Satlaj, which were published in the *Journal* for that month. He showed that the southern edge of the belt of perpetual snow in this portion of the Himálayas is at an elevation of 15,000 feet, while on the northern edge it rises to 18,500 feet; and that on the mountains to the north of the Satlaj exceeds that limit by 500 feet or more. “The greater elevation which the snow-line attains on the northern edge of the belt of perpetual snow is,” he concludes, “a phenomenon not confined to the Tibetan declivity alone, but extending far into the interior of the chain; and it appears to be chiefly caused by the quantity of snow that falls in the northern portion of the mountains being much less than that which falls further to the south, along the line where the peaks covered with perpetual snow first rise above the less elevated ranges of the Himálayas”

Dr Campbell, who was at first attached to the Residency at Kátmandu, and subsequently posted to Dáijling as Superintendent, was the author of many important papers on Himálayan geography. He had long wished to visit Sikkim, but in vain. In September, 1848, he obtained the authority of Lord Dalhousie to procure

A Campbell and B  
H Hodgson  
1848-52

the permission of the Sikkim Raja for Dr. Hooker to travel in his territory ; and addressed the Raja in suitable terms. But under various pretexts, the chief of which was the dreaded wrath of the Sikkim deities if their sacred land were visited by an European, the permission was refused. The whole of Sikkim was declared to be thus sacred, and Kanchanjingá, the special object of Dr. Hooker's journey, the most sacred of all. Dr. Campbell tried hard, but to no purpose. Resolved to see the Raja himself, he made a trip to Sikkim, a highly interesting narrative of which is published in the eighteenth volume of the *Journal*. The map accompanying contained a good deal of the geography of Sikkim previously unknown. He made another journey about the end of 1849, in company with Dr. Hooker, to the frontiers of Tibet, the details of which were laid before the Society and published in 1852. A map of Sikkim and Eastern Nepál, executed by Dr. Hooker, showing his routes, accompanies the paper.

Mr. Hodgson contributed several geographical papers, the most noteworthy of which is one on the physical geography of the Himálayas, which appears in the nineteenth volume of the *Journal*.

Perhaps the most important of the topographical surveys executed in Sir Andrew Waugh's time was that of Káshmir, in which some of the most eminent members of the Survey of India, such as Basevi, Montgomerie, Godwin-Austen, and Brownlow, were engaged and distinguished themselves. The explorations which were under the immediate charge of Captain Montgomerie were fruitful of the most important results. In 1857, he announced to the members of the Society the great height of the Nanga Parbat, which

T G Montgomerie  
1857.

H E Thuillier  
1859—

he estimated at 26,629 feet \* In 1859,  
Colonel (now General Sir H. E.) Thuil-

lier,† one of our oldest living members, who, though not contributing much to the *Journal*, always had the interests of the Society at heart, and afforded us material assistance in reproducing and printing maps, communicated the results of the measurement of another stupendous peak by the same Surveyor, which is second only to Mount Everest, its height being 28,278 feet A brief report of the work of the field season of 1860 was submitted by Captain Montgomerie The triangulation of the Káshmír series had made good progress up the Indus; and among the more noticeable achievements were the fixing of the position of Leh, the capital of Ládák and of several points in China

In 1852, Captain W. S Sherwill, of the Revenue Survey,  
W S Sherwill  
1853

made a tour to the Sikkim Himá-  
layas in order to ascertain the geological  
formation of Kanchanjungá and of the perpetually snow-

J L Sherwill  
1861

covered peaks in its vicinity; and in  
1861, Major J L Sherwill, also of the

Revenue Survey, undertook a trip, in company with Dr. B Simpson and Captain E Macpherson, to explore the glaciers of the Kanchanjungá group of the Sikkim Himá-  
layas Since the time of Drs Hooker and Campbell, very few Europeans had penetrated far into Sikkim; and the accounts of these two journeys, published in our *Journal*, were the only ones extant in 1871, when Mr W T Blanford, of the

W T Blanford.  
1871

Geological Survey, and Captain Elwes  
made a trip into the interior of that

country with a view especially to explore its fauna

\* Hitherto it had been put down as only 19,000 feet above the sea

† Sir H E Thuillier was President of the Society in 1863

§ 3.—*Burma, the Islands in the Bay of Bengal, China, &c.*

The exertions of Bedford, Wilcox, Neufville, and Burlton brought an enormous accession to geographical and ethnological knowledge. The journeys of Wilcox and Burlton had proved the absence of communication between the Iráwadi and the great Tsáupo of Tibet; but they were unable to extend their observations further east, and the greater portion of the valley of the Iráwadi still remained a *terra incognita*, owing to the jealous vigilance of the Burmese officials. The course of the lower portion of the Iráwadi had been delineated by Lieutenant Wood, who accompanied Captain Symes on his embassy to the court of Ava; and the topographical features of the surrounding country had at the same time been represented by Buchanan Hamilton.

But as regards the upper Iráwadi Valley, there was still a vast gap; and the expedition of Captain S. Hannay to the south-east frontier of Assam from the capital of Burma about the end of 1835 was the first important contribution towards a knowledge of that region. The scientific results of the expedition were embodied in a paper by Captain R. Boileau Pemberton and printed in the *Society's Journal* for 1837. Between 1830 and 1837, Dr Richardson and Captain McLeod made several journeys from Moulmein to Ava and the Chinese frontier, the accounts of which appeared in the second, fifth, and sixth volumes of the *Journal*, the eighth and ninth contain Dr Richardson's *Journal of a Mission to the Court of Siam*.

In 1848, Baron Otto des Granges contributed a paper, in which he showed the great commercial and political importance of the Burmese

S. Hannay and R. B.  
Pemberton.  
1835—37.

D Richardson and  
McLeod  
1830—40

Otto des Granges  
1848

town of Bhámo, and the practicability of a direct trade overland between Calcutta and China. Accounts of different parts of Burma and the adjoining country by Lieutenant W. Foley, Major Tickell, Dr C. Williams, and others are scattered through the pages of the *Journal*

W Foley  
1835-36

S R Tickell  
1841-59

C Williams  
1864

overland between Calcutta and China. Accounts of different parts of Burma and the adjoining country by Lieutenant W. Foley, Major Tickell, Dr C. Williams, and others are scattered through the

pages of the *Journal*

The Right Rev Jean Louis, Bishop of Isanopolis, Vicar-Apostolic of Cochin China, and Honorary Member of the Society, contributed

Jean Louis.  
1837-38

two articles on the geography of Cochin China. In these he cleared up several points in which previous writers had contradicted each other — so much so, that Malte-Brun, the great geographer, declared that the knowledge of the country had become more obscure, the more it had been handled by successive writers.

Captain Newbold, the eminent geologist, was the author of a series of papers on Perák and various other states in the Malay Peninsula.

T J Newbold  
1834-36

The islands in the Bay of Bengal have been described by Colonel R H Colebrooke, Nicolo Fontana, Foley, Williams, Dr Adam, and Rev P. Barbe.

R. H Colebrooke  
1790

N Fontana  
1792

P Barbe  
1846

#### § 4 — *Southern India.*

The first part of Stirling's well-known Memoirs on Orissa, published in the thirteenth volume of the *Researches*, treats of its boundaries,

A Stirling  
1825

ancient and modern, soil, productions, rivers, towns, commerce, population, &c. Captain M. Kittoe, a most energetic member of the Society, and one of Prinsep's indefatigable colleagues, was, in 1838, deputed by the Coal and Mineral Committee to explore the supposed coalfields of Orissa, which had been

M Kittoe  
1838-39



reported by him in the previous year. He started on his journey with a determination to make the most of his time, and of the small grant made for the purpose, in antiquarian and other researches beyond the mere exploration of coal-fields. The *Journals* for the following years witness the manner in which he acted up to this laudable resolution. Of his numerous papers several treat of the geography of the country travelled through, especially of Omissa

§ 5.—*Western India, and the North-Western Frontier*

One of the earliest contributions on the geography of this part of India was from Captain De la Hoste, who reported on the country between Karáchi, Táttá, and Schwan. The next important paper is one by Lieutenant J. Postans on Upper Sind and the eastern portion of Cutchee, which is accompanied by a map of the route from Sakkar to Dádar and Kahan in the Mairi country, and a description of the various routes in Sind compiled from the Bombay official documents and communicated by the Government of India.

To Major Leech, Political Agent at Candahar, we are indebted for various contributions on Afghanistan, Beluchistan, and the North-Western Frontier of India. Besides exploring himself, he employed native agents as explorers, and translated and put then itineraries into shape for our *Journal*.

Dr. H. Falconer wrote a letter to the Secretary of the Society on the Cataclysm of the Indus of 1841, and “suggested, as an explanation, a temporary obstruction of the river with snow or ice above Iskardoh. Thus he supposed had dammed up the water and caused the river to be so low, that at Attock, in place of being, as usually, many fathoms, it was fordable

E P De la Hoste  
1840

J Postans.  
1843.

R Leech  
1844—45

H Falconer  
1841

All at once the obstacle had given way, and a mighty flood coming down had swept everything before it."

The great flood of the Indus in August, 1858, brought together a number of observers at Attock Captain Montgomerie, Mr T G Montgomerie, J Obbard, and J H Pratt 1860 Obbard, and Archdeacon Pratt contributed memoranda on it.

Mr Blanford has contributed a thoughtful paper on the physical geography of the Great Indian Desert, in which he comes to the conclusions, that, in very recent geographical times, the Ran of Kach was part of an inlet of the sea, which certainly extended for a considerable distance up the eastern edge of the area now occupied by the Indus alluvium, and perhaps occupied the whole alluvial area of the Indus Valley ; that the central portion of the desert about Jaysalmer and Bálmur was not covered by the sea, but formed either an island or a promontory, and that the sand of the desert is mainly derived from the old seacoast, and its transport into the interior of the country is due to the south-west wind.

The navigation of the Naimadá was for many years an important geographical problem, and several enterprising officers undertook expeditions for its solution. The most difficult part of the passage, that between Chikaldá and Broach, was attempted by Captain Fenwick in 1849, who had in the previous year shown the river to be navigable without very serious difficulty from the Falls of Dhári to the Huanphal

### § 6 — *Afghanistan and Central Asia*

In 1832, Lieutenant (afterwards Sir A ) Burnes, accompanied by Dr Gerard, set out on his memorable journey to Bokhara. Then

A Burnes  
1832-33

letters giving accounts of their trip appeared in the pages of the *Journal*; and Burnes wrote a glowing description of the city of Bokhara, its people, and its sights.

In 1834, W. H. Wathen, Persian Secretary to the Bombay Government, contributed a Memoir on the Usbek State of Khokand (ancient Fergháná); and three years later G. J. Vigne gave an account of the valley of Ghazuri and Cabul

W A Wathen.  
1834

G J Vigne  
1837

Captain E. Conolly contributed in 1840 a sketch of the physical geography of Seisthan, in which he describes the physical features of the country, and remarks upon its flora, fauna, soil, climate, &c. In the following year the journal kept by him while travelling in Seisthan was published. His brother, Captain A. Conolly, who was despatched on a mission to Khorassan, wrote an able Memoir on the country, which was communicated to the Society by the Political Secretariat

A. Conolly.  
1841

Mr. Gardiner was for many years a traveller in Central Asia. The journals kept by him were lent to Sir A. Burnes in Cabul, and were partly destroyed during the Cabul disasters. Such portions as were recovered were edited by Mr. M. P. Edgeworth, a most energetic member of the Society. They contain, amongst other valuable matter, notes on the sources of the Oxus.

Mr Gardiner and  
M P Edgeworth.  
1853.

Major Raverty has furnished the *Journal* with many excellent papers on the geography of Afghanistan and Central Asia. The volume for 1857 contains three papers by him—one on the mountainous district forming the western boundary of the Lower Deráját; another on Kokan, Káshgár, Yáikand,

H G Raverty  
1857—62.

and other countries in Central Asia ; and the third on Káfiisthan. A few years later he contributed an account of the Upper and Lower Seewát and the Kohisthan, to the source of the Seewát river.

The last Afghan War of 1879 added considerably to our

J T Walker and  
J Waterhouse  
1879

knowledge of the geography of Afghan-  
isthan. The officers of the Surveyor-  
General's and Quartermaster-General's

Departments, aided by the Political and Military authorities, zealously carried on the survey operations, an account of which, compiled from their letters and diaries, was prepared by Major Waterhouse, and communicated by General Walker, who has for upwards of twenty years been a most active member of the Society, and materially assisted it in various ways

---

## CHAPTER VI.

## ETHNOLOGY.\*

[§ 1 Preliminary    § 2 Tribes of Mongolian or doubtfully Mongolian Affinities — Eliot — C Reynolds — Rawlins — McRae — Walters — Yule — Wilcox — Rowlett — Dalton — Hodgson — A Campbell — O Donel — H Reynolds — Mason    § 3 Kolarians — Tickell — Sherwill — Samuells — Dalton — G Campbell.    § 4. Dravidians — Shaw — Dalton — G Campbell ]

§ 1.—*Preliminary.*

INDIA is unquestionably one of the best and most attractive fields for ethnological study. Races and tribes of radically different origin, in various stages of savagery and civilization, and with languages as remote from each other as Hebrew is from English, occupy that vast and extensively varied country. Broadly speaking, they are divisible into two distinctly defined groups—the Aryan and the non-Aryan. More than four thousand years have elapsed since a colony of the former from the Highlands of Central Asia settled on the banks of the Indus and its tributaries. But the settlement of the Aryans would appear to have been preceded by several waves of immigration. The Dravidians, comprising the Gonds, Khonds, Todas, Oráons, Málets, and the tribes of Southern India, speaking the Cing, Tulu, Canarese, Telugu, Támil, and Malayalan dialects, were probably the earliest race that entered India from the North-West; and they probably found the country

already occupied by the aborigines of the Kolarian group—the Kols, Santáls, Hos, &c.—whom they possibly drove into the unhealthy jungle-clad hills, where they live, like numberless other tribes of India, as so many fossils of the Pre-historic period. Besides the Dravidians and the Kolarians, there is a heterogeneous mass of other non-Aryan tribes inhabiting the Himálayas, the elevated hilly tracts of Assam and the North-Eastern Frontier, whose affinities have not yet been satisfactorily ascertained, but who would appear to approximate to the Mongolian type, and have been denominated the “Indo-Chinese”

### § 2 — *Mongolian or doubtfully Mongolian Tribes.*

Mr John Eliot was the first European to travel amongst the *Gáros*. He was deputed in 1788 to investigate the duties collected on the *Gáro Hills*, and to secure the good-will of the people who had hitherto known no intercourse with Europeans. The Government had seen that, by good treatment and kindness, the hill tribes could in a large measure be rendered at least peaceable and inoffensive, if not serviceable; and Mr Eliot was given some scarlet cloth to be distributed amongst the people. His intercourse with the *Gáros* was of a most open nature; and in the third volume of the *Researches* he furnishes a lucid description of their appearance, mode of living, nuptial and funeral ceremonies, &c. The next important account of the people is by Captain

C S Reynolds  
1849

C S. Reynolds, Principal Assistant to the Commissioner of Assam

The earliest notice of the *Kukis* is one in Persian by Mr John Rawlins in the second volume of the *Researches*, translated by Sir W

J Rawlins  
1790

Jones. It treats briefly of the manners, religion, and laws

of the people. The next account, contributed by Dr. J. McRae of Chittagong, is much fuller.

J. McRae  
1891.

The information embodied in it was obtained from a native of Rángamá, who had long resided among the Kukis as their captive. They are all described as hunters and warriors, divided into a number of distinct tribes, totally independent of each other, but all admitting more or less the authority of three different Rájás. The great similarity of the *Mag* and *Kuki* languages, many words being common to both, is pointed out; and the character, food, funeral ceremonies, religious belief, &c., of the people described.

It was in 1826 that the attempt to open direct communication between Assam and Silhet brought the officers of the British Government into contact with the *Khásiás*. They were first properly brought to the notice of the civilized world in a paper by Mr. H. Walters, published in the seventeenth volume of the *Researches*. He describes them as a stout, athletic race, fairer than the inhabitants of the plains, devoted to chewing *pán*, and fond of spirituous drink. He notices those singular stone monuments (*cromlechs*) formed of large stone slabs, supported by upright stones set on end, which form such a characteristic feature in the Khási hills, specially about Nanklo, and saw the urns with the ashes which had been deposited in them after cremation. Colonel Yule

H. Yule  
1844

visited the Khási hills about 1844, and contributed a Memoir on the country and its people, whose physiognomy, food, arts, laws, festivals, amusements, government, religious belief, astrological notions and local traditions are described in detail. He also notices the *cromlechs* which he saw in great profusion.

Wileox's admirable Memoir on Assam contains numerous notices of the tribes he met with, such as the *Khámris*, the *Abors*, the *Mishms*, &c. The last-mentioned tribe, who inhabit the mountainous country on the extreme north-eastern frontier

of Assam, is noticed at length by Lieutenant (afterwards Colonel) Rowlatt, who penetrated to the Du and up that river, in a northerly direction, to the village of Tuppang, in a letter to Major F. Jenkins then Governor-General's Agent, N-E Frontier, communicated to the Society by the Government of India.

The custom, religion, language, &c., of the *Abors* and *Mishms* were admirably treated by Colonel Dalton in a communication which was published in the fourteenth volume of the *Journal*.

Mr. Hodgson, the well-known naturalist and orientalist, contributed a number of ethnological articles in which the languages of the *Singphos*, *Mithan Nágás*, *Tablung Nágás*, *Khari Nágás*, *Angami Nágás*, and various other aboriginal tribes are elaborately compared. From the Himalayan region, to which his personal observations were specially directed, to the island of Ceylon, and from the extreme eastern frontier of Assam to the westernmost limit of India, the aborigines were studied by him with that ability and devotion which characterized him in all his pursuits. His ethnological researches, which extend over a quarter of a century, and amount to twenty-one articles, began with the people of Népál and its vicinity, but gradually included the aborigines of the north-eastern frontier, of the Nilgiris, of Central India, &c. In 1849, he gave an intensely interesting account of the *Kácháris* (or Bodo) and *Dhimals*, who mainly occupy the malarious forest belt extending from 25°



to 27° North Lat., and from 88° to 93½° East Long.,\* the Dhimals being restricted to the most westerly part of this region—the sál forest lying between the Konki and the Dhorlá.†

Dr. Campbell, Superintendent of Dárjiling, who was one of our most energetic contributors, furnished accounts of the *Lepchás* of Sikkim, and of the *Limbú* and other hill tribes.

Mr. O'Donel, Revenue Surveyor of Arácán, and the Hon. H J. Reynolds, our present President, contributed a few notes on Some Tribes of the Eastern Frontier, viz, the *Khumis*, the *Kís*, the *Khyens*, and the *Tipperahs* (or *Kukís*). The last-mentioned people are described by Mr Reynolds as distinct from the *Kukís* of Chittagong. The majority resemble the *Khásiás*, having strongly marked Mongolian features. Mr. Reynolds was "stuck with the fair complexions of many of them, scarcely darker than a swarthy European."

The Rev. Dr. Mason has minutely described the *Kárens*, who are scattered over Burma and Siam through nine degrees of latitude and eight degrees of longitude. Though small in stature, they are well proportioned, with complexion similar to that of the Chinese, and the hair straight, coarse, and usually very black. The head is pyramidal; the breadth of the face across the cheek bones wider than across the temple; and the nose is much depressed. The face is lozenge-shaped, and the type of the countenance, Mongolian.

---

\* The meridional limits, according to Colonel Dalton, might be put much further apart—"Ethnology of Bengal," p 84

† The *Kooch*, who are also noticed in the paper in question, apparently as related to the Bodos and Dhimals, are believed by Dalton to be a branch of the Bhuijá family, whom he classes with the Dravidian



short, well-made, and active man, quiet, inoffensive, and cheerful; with the thick lips, high cheekbones, and spread nose of the Bhils and Kols; beardless or nearly so; intelligent, obliging, and timid. "The Santhál is an industrious cultivator of the soil, and as he is unfettered with caste, he enjoys existence in a far greater degree than does his neighbour, the priest-ridden and caste-crushed Hindu."

Mr. Piddington contributed a memorandum to the twenty-fourth volume of the *Journal* on two individuals of an unknown forest race, supposed to occupy the jungles south of Pálámáo.

H. Piddington.  
1855

Mr. Samuells of the Bengal Civil Service, Superintendent of the Tributary Máhals of Catak, considered them as probably *Patuás* or *Juángás*, who are found in the states of Dhekenal and Keonjhar, and who were noticed by him in a paper accompanied by interesting sketches. They are described as diminutive, and seemingly weak, with broad face, flat nose, and wide nostrils. The sole garment of the women consists of two large bunches of leaves, hence the name of the tribe, *Patuá*, or "leaf-bearing."\*

E. A. Samuells  
1858

Colonel Dalton, late Commissioner of Chotá Nágpur, who had long been engaged in ethnological researches in Assam and Chotá Nágpur, gave an account of a tour in Bonai, Gangpur, Udayapur, and Sirgújá, in which he described the *Korwas* found in Jushpur, as well as in the wildest parts of Sirgújá, and the mountainous country intervening between this last-named place and Pálámáo, and akin to the Santháls, the Bhumijs, and the Mundás of Chotá Nágpur; the *Birbors*.

E. T. Dalton.  
1865-66.

---

\* "The Juáings," observes Colonel Dalton, "are in habits and customs the most primitive people I met with or read of"—*Ethnology of Bengal*, p. 153

(literally foresters), a nomadic tribe of limited numerical strength, the *Kaurs*, scattered through the jungles of Chattisgar, Udayapur, Singujá, &c, and claiming descent from the Kurus of Kuru Pándava fame, but characterized by Colonel Dalton as one of the ugliest races he had ever met with—dark, coarse-featured, wide mouthed, broad-nosed, and thick-lipped; the *Bogthás* of Singujá; and also several tribes with Dravidian affinities to be noticed in the next section.

In 1866, Colonel Dalton communicated an excellent account of the non-Aryan population of Chotá Nágpur, the so-called ‘Kols’ In addition to the Kolarian tribes mentioned above, he noticed the *Khariás*, closely allied to the Juáangs, and most abundant on the banks of the southern Koel river, the source of the Bárhmani, into which they throw the ashes of their dead, and which they venerate, much as the Santháls do the Dámúda; the *Patuás* or *Juáangs* first noticed by Samuells; the *Bhumij*, a ramification of the *Mundás*, whose home is in Dhalbhum (or Ghassilla), but who form the majority of the population in all the estates of the Mánbhum district to the south of the Kassae river, and are also found in Keonjhar and Mohurbhanj, and the *Mundás*, most nearly related to the Hos or Laikakols of Kolehan These latter are described as “the nucleus of the Moondah nation, the most compact, the purest, most powerful, and most interesting division of the whole race, and in appearance decidedly the best looking. In then erect carriage and fine manly bearing the Hos look like a people that have maintained and are proud of their independence. . . . . The inhabitants of the imperfectly reclaimed hill forests are more savage-looking, but they seldom deteriorate to the almost simian physiognomy that the Oriáons are found with under similar circumstances”

At a meeting of the Natural History Committee, held on the 11th of February, 1862, Mr A. Grote, then President of the Society, made a proposal for bringing together collections of crania illustrative of the various peoples inhabiting India and the adjacent countries; and a circular letter was issued soliciting the co-operation of members and others towards this object.\* Some skulls were sent by Colonel Dalton, Colonel Tytler, and others in response to this call. But the number was small, and leisured men competent to work them out were wanting. In December, 1865,† Dr. J. Fayrer submitted to the Society a proposal for a grand Ethnological Exhibition in Calcutta, which would afford the anthropologist an opportunity for the systematic study of the various races of the Old World. The idea was cordially approved of by the Society, and a Committee, consisting of Dr. Fayrer, Mr. A. Grote, Dr. D. B. Smith, Mr. W. L. Heeley, Dr. J. Anderson, and Dr. S. B. Partridge, was appointed to carry it out. But there were difficulties in the way; the plan was found impracticable and was ultimately abandoned. In the meantime, however, the Government of India had, at the request of the Council of the Society, called on the local authorities to furnish reports on the tribes found within their respective jurisdictions. Colonel Dalton, who had utilized the splendid opportunities afforded to him of making ethnological investigations in various parts of Assam and Chotá Nágpur, was selected to edit the reports. But the material contained in these was found to be very insufficient, and Colonel Dalton proposed "to draw up an account of the tribes in Bengal from all available sources of information." The proposal was warmly received by the Society, and the Council gave

---

\* *Proceedings*, 1865, p. 168† *Proceedings*, 1866, p. 82

Colonel Dalton all the assistance in their power The result was the publication in 1872 of a handsomely illustrated quarto volume—"The Ethnology of Bengal"

When the Government of India, at the suggestion of our Society, consented to call upon its officers in all parts of India to submit lists of the races and tribes found in the various districts, Sir George (then Mr Justice) Campbell, with a view to assist the collation of such data, drew up a capital general account of the Ethnology of India He had made careful notes during his visits to the Panjáb frontier, to the Bombay Presidency, and to the Maisur country, and had taken a most prominent part in the anthropological discussions at the Society. His inquiries were directed to the peculiarities in physical appearance, language, religion, laws, manners, and mental characteristics presented by the various peoples of India These are classed by him as—

- 1 Aborigines
- 2 Modern Indians.
- 3 Borderers.

Under the first head, Sir George Campbell described the Southern or Dravidian tribes, the Northern or Kolarian tribes, the tribes of Western India, the tribes under the Himálayas, and the *Bhuiyás* of the Bengal Borders The second division includes the *Bráhmans*, the *Játs*, the *Rápputs*, the *Kurmis*, some Punjab tribes, the Mahomedan settlers, pastoral tribes (*Gujars*, *Ahirs*, &c), the *Máls* and others, the *Kshatriyas*, the *Beniás* and other trading tribes, the *Káyasthas* and other writer tribes, the artisans, and the inferior helot classes, and some tribes of the South The third class comprises the *Timén* or Islanders, the *Mophlás*, the tribes of the Bombay coasts, the *Sindhus*, the *Beluchis*, the *Pátháns* or Afgháns, the aboriginal Arians of the Caucasus, the mixed tribes of the Thibetan frontier, and the tribes of the Eastern frontier

§ 3.—*The Dravidians.*

The *Málers* or *Páháris* (hillmen) of the Rájwáhál hills were first noticed by Lieutenant T Shaw, whose account, though written nearly ninety years ago, is still the only authority on that interesting tribe, the northernmost known fragment of the great Dravidian race.

T Shaw.  
1795

In his account of a tour in Bonai, Gangpur, Udayapur, and Sirgújá, Colonel Dalton noticed the *Bhuiyás*,\* an interesting and widely-spread tribe, being found in Bhágálpur, Bihár, Dinájpur, &c. ; the Jushpur *Oráons*, extremely ugly, "with foreheads 'villainous low,' flat noses, and projecting maxillaries," approaching "the negro in physiognomy much closer than do their brethren in Chotá Nágpur ;" and the *Gaurs*, completely hinduized in Sirgújá and Udayapur, but considered by Colonel Dalton as affined to the *Gonds*. The *Oráons* were treated of more at length in Colonel Dalton's paper on the 'Kols' of Chotá Nágpur.

E T Dalton  
1865-66.

Sir George Campbell, in his excellent handbook on the Ethnology of India, describes various Dravidian tribes.

G Campbell  
1866

---

\* The *Bhuiyas* form an important constituent of the population of Singbhum. Their ethnological relations have not yet been satisfactorily settled. They are affiliated to the Dravidians by Colonel Dalton.

## CHAPTER VII

## CHEMISTRY \*

[§ 1 Preliminary    § 2 Calcutta Water-supply, &amp;c — Waldie — Pedler ]

§ 1.—*Preliminary*

THERE are important branches of Geology and Biology, which are best and most profitably studied in the field; and Geography is pre-eminently a subject for out-door work. In a country, parts of which are even now but little explored, anyone with a little general culture and some amount of observational power can, with a few simple, inexpensive, and easily portable appliances, make material additions to our knowledge of these subjects; and not a few of the contributions we have reviewed hitherto, important as they are, are of this preliminary nature. It is far otherwise with Chemistry. That is a subject which can be prosecuted only in the laboratory. In India, until recently, there have been but few laboratories worth the name, and we have had but few competent men with leisure to devote to lengthened chemical research. Under these circumstances, our Chapter of Chemistry at the Asiatic Society\* is near being as brief as the proverbial Chapter on Snakes in Ireland.

§ 2 — *Calcutta Water-supply, &c.*

Mr Waldie, one of our oldest and most zealous members, made between 1866 and 1867 an extensive series of observations on the

D Waldie  
1866—

---

\* See Index, p lxxxiii.



water of the Hugli at Calcutta, the results of which, communicated to the Society, went to show that the water of that river was the purest that could be obtained—a conclusion that was at first controverted, but the correctness of which has since been confirmed. In 1873, Mr. Waldie contributed a paper “On the Muddy-water of the Hugli during the rainy season, with reference to its purification and to the Calcutta Water-supply,” in which the causes of the difficulties attending filtration were examined and explained.\*

Mr. Pedler, Professor of Chemistry at the Presidency

A Pedler  
1878

College, Calcutta, has been a most active member † In 1876, he contributed a

note on the use of the Radiometer as a Photometer, published in the *Proceedings* for that year. Mr Crookes, the well-known Physicist, had, in a paper which appeared in the *Quarterly Journal of Science* for July 1875, come to the conclusion that the radiometer is a perfect photometer. Mr. Pedler instituted a series of experiments to test the validity of this conclusion, with the result that he could not speak with great confidence of the radiometer as a photometer. In 1880, he read a paper on the Water-supplies of Calcutta. The first part of it is devoted to the consideration of the quantity and quality of the old supply which existed before the introduction of the present hydrant water. As for the quantity, Mr. Pedler's researches led him to conclude that, at the time when Calcutta depended for its water-supply on its tanks and wells, the inhabitants must have used the same water over and over again,

though of course without knowing it. The state of affairs as to quality was even worse. Of the two hundred samples of Calcutta tank and well waters examined, Mr. Pedler found 44 per cent. were true sewages, 22 per cent diluted sewages, 20 per cent contaminated with considerable quantities of sewage, 9 per cent "dirty waters," and about 4 per cent only moderately safe waters. The second part of the paper dealt with the present water-supply of Calcutta, which consists of the Hugli water pumped from the river at Paltá, where it is collected in settling tanks, and after subsidence filtered through sand and supplied to Calcutta. The analysis of the hydrant water led to the result, that the Calcutta water falls just outside the class of waters of "great organic purity," but that it is high in the class of waters of "fair organic purity." In the third division of his long and interesting paper, Mr. Pedler considers the extension of the present water-supply. It is shown by the analytical results, that water collected from within three or four miles of Calcutta would be decidedly impure, and a strong opinion is expressed that the water for the extension of the supply should be collected at Paltá, as has been hitherto done

---

## CHAPTER VIII.

## THE MUSEUM.

THE Asiatic Society of Bengal is one of the oldest Scientific Institutions in the world, and is, certainly, the oldest in this country. For nearly three-quarters of a century, its publications were the principal vehicle of information on many subjects of interest and importance in India. But for it, many valuable researches would never have been undertaken, many important papers would never have seen the light. From the days of Colonel Colebrooke and William Lambton, to very recent times, the pages of its *Transactions* were the only source available to the public for authentic information on all interesting operations of the Topographical and Trigonometrical Surveys, and without the channel of publicity afforded by the Society, the results of the important surveys of Lambton, Webb, Hodgson, Herbert, Wilcox, and others would have lain buried among musty piles of official records: some, no doubt, consigned to oblivion, and some, more fortunate, to be rescued moth-eaten and perhaps almost illegible and unrestorable, years after their usefulness or interest had been partly or entirely lost. The early publication which the Society's *Transactions* secured to the observations of cultured travellers like Moorcroft, Gerard, and Hodgson, in remote parts of India and the adjacent countries, stimulated and helped other explorers; and it is thus that a considerable portion of our

accessions to geographical and ethnological knowledge has been effected. The grand series of the Mammalian Fauna of the Sub-Himálayas, the Narbadá Valley, and Peim Island owe their collection and elucidation, in no small degree, to the warm encouragement and cordial assistance of the Asiatic Society. Falconer, Cautley, Colvin, Baker, DuRAND, and Spilsbury were all among the Society's most ardent and energetic contributors. "As I am neither a geologist, nor have the leisure to make myself one," wrote Colvin, "I have obviously no motive for collecting a cabinet myself; I propose, therefore, excavating and collecting for the Museum of the Asiatic Society."\* Previous to the commencement of the publications of the Geological Survey of India, the Society's *Transactions* were the principal channel for communications on Indian geology. The Society has been ever forward in the promotion of any scientific movements that have been set on foot in this country. It was under its superintendence that the boring operations in Calcutta, which revealed the geological structure of Lower Bengal, were conducted; and it was with its help or instrumentality that the investigations of Franklin, Hutton, Csoma de Koros, and of a host of other explorers were carried on.

But one of the most conspicuous and permanent monuments of the Society's work is unquestionably its Museum, which was taken over by the Government some years ago, and which is now located in one of the grandest edifices in the best situation in this city. As early as the 29th of September, 1796, the Society announced their intention of establishing a Museum, and invited donations †. But it was not until the beginning of 1814 that any steps were taken to carry

---

\* *Journal*, Vol. IV, p. 56† *Asiatic Researches*, Vol. VI, pp. 591, 593

out that intention. Contributions of animals, plants, minerals, &c., were solicited; and arrangements were made for their reception. By the year 1835, the collections had grown to such dimensions that the services of a paid curator were found necessary; and in May, Dr. J. T. Pearson, of the Bengal Medical Service, was appointed at a salary of Rs. 200 a month. The appointment was renewed in 1836. But in May, 1837, the condition of the Society's finances compelled it to solicit Government aid for the support of the Museum; and the following resolution was passed:—

“That—viewing the maintenance of the Museum as a national object, and calculated to be of immense importance to science if placed upon a footing of efficiency, with a professional Naturalist at the head, directing researches and systematizing informations obtained from various sources, both public and private, in all the branches of Physical Science, but more particularly in regard to the Natural History of British India and Asia at large—it is incumbent on the Society to make a full and urgent representation to Government on the subject, and to solicit such support as is accorded in most other countries to similar institutions of national and scientific utility.”

An application was forwarded to the Court of Directors in accordance with this resolution. It was refused; but on further representation to the Governor-General, a monthly grant to the Museum was authorized, and sanctioned by the Court of Directors in a Despatch dated the 18th September, 1839.

The Society was thus placed in a position to engage the services of a highly competent curator, Edward Blyth, whose work we have noticed in the Chapter on Zoology. His services to the Museum were invaluable, and the

following resolution in recognition of his efforts was unanimously passed by the Society in November, 1864 :—

“ On the eve of transferring the Zoological collections of the Society to Government, to form the nucleus of an Imperial Museum of Natural History, the Society wishes to record its sense of the important services rendered by its late curator, Mr. Blyth, in the formation of the collections. In the period of twenty-two years during which Mr. Blyth was curator of the Society's Museum, he has formed a large and valuable series of specimens richly illustrative of the Ornithology of India and the Burmese Peninsula, and has added largely to the Mammalian and other Vertebrate collections of the Museum ; while, by his numerous descriptive papers and catalogues of the Museum specimens, he has made the materials thus amassed by him subservient to Zoological Science at large, and especially valuable to those engaged in the study of the Vertebrate Fauna of India and its adjoining countries ”<sup>s</sup>

In the meantime the Society had become the custodian of an important series of Geological and Palæontological collections which had been yearly growing in richness ; but before the year 1839, these latter appear to have suffered much from neglect, and were in almost chaotic confusion. In that year, at the December meeting, the then ‘Committee of Papers’ submitted a Report on the Museum, in which it is stated, “that the first object of the Society in remodelling its Museum should be to form a grand collection of minerals and fossils, illustrative of the Geology, Geography, and Palæontology of our British Indian possessions. A few of the existing minerals and some superb fossils in our Museum are

---

\* *Journal* Vol XXXIII, p 582 For an account of the transfer of the Society's Collections to Government, see *Calcutta Review*, Vol. XLIII (1866), p 427

available for this object, but it is clearly within the scope of the Society's influence to procure, within a few months, collections of specimens from every part of India, and in such numbers as would find the Curator in ample employment."\*

In 1840, the Geological and Palæontological collections were separated from the rest under the appellation of the Museum of Economic Geology, which began to thrive under the care of Mr Piddington, who then officiated as Curator. On Mr. Blyth taking charge of the Curator's office early in September, 1841, Mr. H. Torrens, Secretary of the Society, wrote asking him to take special care of the new Museum. In his reply dated the 22nd September, 1841, Mr. Blyth said :

" . . . I think I may crave some indulgence on the part of the Society, if I do not, at the very first, prove alike proficient in every one of these several departments, confidently appealing to the experience of any practical naturalist for an acknowledgment of the reasonableness of the plea which I have here ventured to offer

"It is in the Mineralogical Department, unfortunately, that I am at present less qualified by previous study to devote my immediate and first labours advantageously for the Society."

In 1842, the Society succeeded in securing a separate Government grant for the Museum of Economic Geology, to which Mr. Piddington was appointed curator. The Museum grew under the custody of the Society until 1856, when the Government portion of the collection was trans-

---

\* *Journal*, Vol. VIII (1839) p. 104. The Report is signed by Sir Edw. and Prof. Prichard, President of the Society, Mr. H. I. Pridmore, Vice-President, Messrs W. P. G. & Co., H. Torrens, J. C. C. Seale, and W. B. O'Shaughnessy, David Haig, Col. D. McLeod, Dr. D. Stewart, Sir H. W. Storer, Major W. H. Lusk, and Dr. N. Welsh.

ferred to the newly-established Museum in connection with the Geological Survey of India. The Society's own collections of Geology and Mineralogy were also asked for, but were refused. A careful inquiry into the condition of the Museum, its growing importance, and the poor accommodation available in their building had impressed the Society with the necessity for the institution of a grand public Museum in Calcutta, to which the whole of the Society's collection might be transferred under certain restrictions as any partial transfer would probably have been detrimental to the accomplishment of this noble object. Negotiations were opened by the Council of the Society with the Government on the subject, which terminated in the establishment of the present Indian Museum, the Society offering to make over its collections on the condition that a suitable building should be erected and that the collections should be placed under the management of a body of Trustees, which conditions were carried out and legally instituted by Act XVII of 1866.

---









# CLASSIFIED INDEX

TO THE

## SCIENTIFIC PAPERS

IN THE SOCIETY'S PUBLICATIONS

FROM 1788 TO 1882.

### I

#### MATHEMATICAL AND PHYSICAL SCIENCE.

[*N B*—Articles marked with \* are partly antiquarian.]

As Res	
Vol I (1788)	<p>Astronomical observations in Fort William, and between Madras and Calcutta T D Pearse, Col 57</p> <p>Friction in Mechanics R Burrow ... 171</p> <p>A method of calculating the moon's parallax in latitude and longitude R Burrow .. 320</p> <p>Remarks on the artificial horizons R Burrow 327</p> <p>Demonstration of a theorem concerning the intersection of curves R Burrow ... 330</p> <p>Meteorological Journal from 1st March, 1785, to 28th February, 1786 Col Pearse . . . 442</p> <p>Correction of the Lunar method of finding the longitude R Burrow .. .. 433</p>
II. (1790)	<p>*Astronomical computations of the Hindus S Davis 225</p> <p>*Antiquity of the Hindu Zodiac Sir W Jones 289</p> <p>Meteorological Journal 1784-85 H Trail 419</p> <p>Observations of some of the eclipses of Jupiter's Satellites R Burrow . . . . 483</p> <p>A proof that the Hindus had the Binomial Theorem R Burrow .... 487</p>

As Res  Vol III (1792)	<p>*Demonstration of one of the Hindu rules of Arithmetic R. Burrow ..... 145</p> <p>*On the Musical modes of the Hindus By Sir W. Jones ..... 55</p> <p>Method of reducing practical tables R Burrow .. 141</p> <p>The Lunar year of the Hindus. Sir W Jones ..... 257</p>
IV (1795)	<p>Astronomical observations in upper Hindusthan. W. Hunter..... 14</p> <p>A treatise on Barometers F. Balfour ..... 195</p> <p>*Questions and remarks on the Astronomy of the Hindus John Playfair, A M, Professor of Mathematics at Edinburgh ... ..... 159</p> <p>Astronomical observations made on a Voyage to the Andaman and Nicobar Islands R H Colebrooke, .... 317</p> <p>Astronomical observations made on a Survey through the Carnatic and Mysore, R. H Colebrooke . .... 321</p> <p>Latitudes and longitudes of some principle places of India determined from astronomical observations R Burrow ..... 325</p> <p>Astronomical observations. W. Hunter ... .... 359</p>
V (1797.)	<p>*Account of the Hindustanee Horometry J Gilchrist 81</p> <p>On Indian weights and measures H T Colbrooke .. 91</p> <p>*Some account of the Astronomical labours of Jaya Singha, Raja of Ambhere W Hunter ..... 177</p> <p>*Chronology of the Hindus (Hindu Astronomy). Capt F. Wilford ..... 241</p> <p>*Remarks on the principal æras and dates of the Ancient Hindus J Bentley ... .... 315</p> <p>Astronomical observations made in the upper provinces of Hindusthan W. Hunter .... .... 413</p>
VI (1799)	<p>Observations on the theory of walls W Lambton .. 93</p> <p>Maximum of Mechanic powers and the effects of Machines when in motion. Lieut W Lambton ..... 137</p> <p>*The antiquity of the Sûrya Siddhânta J Bentley 537</p>
VII (1801.)	<p>An account of a Method for extending a Geographical Survey across the Peninsula Brigade Major Lambton ..... 312</p> <p>Demonstration of the 12th Axiom of the first Book of Euclid. Rev. Paul Lum ..... 449</p>

<p>As Rec</p> <hr/> <p>Vol VIII (1805)</p>	<p>Observations respecting the remarkable effects of Sol-Lunar influence on the fevers of India, with the scheme of an Astronomical Ephemeris for the purposes of Medicine and Meteorology F Balfour ..... 1</p> <p>An account of the Measurement of an arc on the meridian on the Coast of Coromandel, and the length of a degree deduced therefrom in the latitude <math>12^{\circ}32'</math> W Lambton 137</p> <p>*On the Hindu systems of Astronomy, and their connection with history in ancient and modern times J Bentley 193</p>
<p>IX (1807)</p> <p>. .</p>	<p>An account of experiments made in the Mysore country, in the year 1801, to investigate the effects of terrestrial refraction Lieutenant Warren . . . . . 1</p> <p>Description of a very sensitive Hygrometer Lieut. Kater . . . . . 24</p> <p>*On the Indian and Arabian divisions of the Zodiac H T Colebrooke . . . . . 323</p> <p>Description of an improved Hygrometer Lieut T Kater . . . . . 394</p> <p>On the grāmas or musical scales of the Hindus J D Paterson . . . . . 445</p>
<p>X ) (1808</p>	<p>An account of Trigonometrical operations in crossing the peninsula of India and connecting Fort St George with Mangalore Captain William Lambton Communicated by the Honorable William Petrie, Governor of Fort St George . . . . . 290</p> <p>An account of Astronomical observations taken at the Honorable Company's observatory near Fort St George in the East Indies, in the years 1806 and 1807 To which are added some remarks on the declination of certain Stars and of the Sun when near the Zenith of that place Capt John Warren of H M 33rd Regiment of Foot . . . . . 513</p>
<p>XI (1810)</p>	<p>An account of experiments made at the observatory near Fort St George, for determining the length of the simple pendulum beating seconds of time at that place Capt J Warren . . . . . 293</p>

<p>As. Res</p> <hr/> <p>Vol XII (1816)</p>	<p>An account of the measurement of an Arc on the Meridian, comprehended between the latitudes <math>8^{\circ} 9' 33'' 39'''</math> and <math>10^{\circ} 59' 48'' 93'''</math> north being a Continuation of the grand Meridional Arc commenced in 1804 and extending to <math>14^{\circ} 6' 19''</math> north Lieut-Colonel William Lambton, His Majesty's 33rd Regiment of Foot ..... 1</p> <p>On the early history of Algebia Edward Strachey 158</p> <p>An account of observations taken at the observatory near Fort St George, in the East Indies, for determining the obliquities of the Ecliptic in the months of December 1809, June and December 1810 Capt John Warren His Majesty's 33rd Regiment of Foot ..... .. 192</p> <p>*On the notions of the Hindu Astronomers, concerning the precession of the Equinoxes and motions of the Planets. H. T. Colebrooke ..... .. 209</p> <p>On the heights of the Himalaya Mountains. H. T. Colebrooke ..... .. 251</p> <p>An account of the measurement of an Arc on the Meridian extending from latitude <math>10^{\circ} 59' 49''</math> to <math>15^{\circ} 6' 0'' 65'''</math> north William Lambton ..... .. 286</p>
<p>XIII (1820)</p>	<p>An account of the measurement of an Arc on the Meridian, extending from latitude <math>15^{\circ} 6' 2''</math> to latitude <math>18^{\circ} 2', 45''</math> being a further continuation of the former Arc, commencing latitude <math>8^{\circ}, 9', 38''</math>. Lieutenant-Colonel W Lambton ..... .. 1</p> <p>On the Binomial Theorem, as known to the Arabians. J. Tytler Communicated by R Tytler, M D. .... 456</p>
<p>XIV. (1822)</p>	<p>Latitudes of places in Hindustan and the northern mountains, with observations of Longitude in the mountains, according to Immersions and Emersions of Jupiter's Satellites Capt J A Hodgson ..... 153</p> <p>An account of Trigonometrical and Astronomical operations for determining the heights and positions of the principal peaks of the Himalaya Mountains Captain J A Hodgson and Lieut J D Herbert.... .. 187</p> <p>On an Indian method of constructing Arches Captain Makintosh .. ..... 476</p>
<p>XV. (1825)</p>	<p>Observations on the climate of Subathu and Kotgarh. Lieut. P. Gerard, Beng Nat Inf ..... .. 469</p>

As Rec	<p>Extracts from the Proceedings of the Benares Corresponding Society—Latitude of the Hindu observatory at Benares W Craicraft and J Prinsep ..... 1</p> <p>Table of Multipliers for ascertaining the Deviation of a Transit Instrument from the Meridian. William Craicraft ..... vi</p> <p>Meteorological Journal J Prinsep .. ..... vii</p> <p>Description of a Pluviometer and an Evaporimeter constructed at Benares. James Prinsep ..... xiii</p> <p>Abstracted results of marine observations G A Prinsep ..... xv</p>
XV (1825)	
XVI (1828).	<p>On a new method of determining the longitude, from the observed interval between the Transit of the Moon's enlightened limb, and that of the Sun, or of one or more Stars Captain P W Grant..... 235</p>
XVII (1832)	<p>An Essay on the Extraction of the roots of integers, as practised by the Arabs John Tytler . . . . . 51</p>
XVIII pt 1 (1829)	<p>Tables exhibiting a daily register of the tides in the river Hoogly, at Calcutta, from 1805 to 1828, with observations on the results thus obtained James Kyd.... 259</p>
pt 2 (1833)	<p>Observations on the inclination and declination of the magnetic needle Lieut-Colonel J A Hodgson and Monsieur de Blossville, communicated by Captain J D Herbert . . . . . 1</p> <p>On the Formulae for calculating Azimuth in Trigonometrical operations Captain G Everest ... 93</p> <p>On the compensation measuring apparatus of the great Trigonometrical Survey of India Captain Everest 189</p> <p>Experiments on the Strength and Elasticity of Indian woods Captain H. C Baker ..... 215</p>
Journal Vol I (1832.)	<p>Summary of Meteorological observations made at the Surveyor General's Office in Calcutta during the years 1829-30-31 ..... 23</p>



<p>Journal</p> <hr/> <p>Vol I (1832)</p>	<p>On the temperature and saltness of the river Hughli, from Calcutta to the Sea. G A. Prinsep..... 104</p> <p>Abstract of Meteorological tables, kept at Bancura. J. MacRitchie for 1830 and 1831..... 154</p> <p>Some observations on the quantity of Earthy matter brought down by the Ganges river Rev. R. Everest 238</p> <p>Meteorological Averages at Canton and Macao ..... 303</p> <p>Observations of the Transit of Mercury James Prinsep, Sec ..... 408</p> <p>Description of an Instrument for Trisecting Angles Lieut T S Burt, Engineers..... 499</p> <p>Some additional observations on the quantity of Earthy matter brought down by the Ganges, its depth and velocity, made during the rainy season of 1832, at Ghâzipur. Rev R Everest ..... 519</p> <p>Meteorological registers for March, May, June, July, August, September, ..... 168, 216, 264, 326, 374 and 430</p>
<p>II. (183</p>	<p>Trisection of an Angle. Lieut Nasmyth Morrisson .. 71</p> <p>An Experimental inquiry into the means employed by the natives of Bengal for Making ice T A Wise, M D ..... 80</p> <p>Abstracts of observations of the Temperature, Pressure and Hygrometrical state of the air at Nasirabad Major T Oliver ..... 128</p> <p>Catalogue of the most remarkable Celestial objects visible in the Horizon of Calcutta, arranged in order of Right Ascension ..... 252</p> <p>Description of a Compensation Barometer and observations on wet Barometers J Prinsep ..... 258</p> <p>Meteorological table kept at Bancura, for the year 1832 John MacRitchie .... 383</p> <p>Note on the extraordinary fall of the Barometer during the gale of the 21st May last James Prinsep, Sec .... 427</p> <p>Culminating Stars observed with the Moon at Nasirabad Lieut -Col Thomas Oliver . .... 432</p> <p>An inquiry into the laws governing the two great powers, attraction and repulsion, as operating on the Aggregation and Combination of Atoms By Julius Jeffieys, Bengal Medical Service ..... 441, 506</p>

Journal

Vol  
II  
(1833.)

Determination of the Constant of Expansion of the standard 10 feet iron bar of the great Trigonometrical Survey of India, and Expansions of gold, silver and copper by the same Apparatus James Prinsep .. . . .	130
Table of ascertaining the heights of mountains from the boiling point of water James Prinsep, See .. . . .	191
On the climate of Nagpur W Geddes, Surgeon, Mad Eur Reg .. . . .	239
Table shewing the rise of spring tides in Bombay Harbour during night and day for the year 1832, communicated by Ben Noton .. . . .	217
Description of a Sun Dial in the Court of the Moti Masjid, in the fort of Agra Capt J T Boileau, Engineers .. . . .	251
Defence of Lt Burt's Trisection instrument .. . . .	485
Additional note on the climate of Nagpur. J. Prinsep, See As Soc .. . . .	542
Abstract of a Meteorological Journal kept at Kotgarh (Lat 31° 11' 15" N Long 77° 27' 19" E) Subathu, and the intermediate places in the Himalaya Mountains for 1819—20 Capt E Smith, Bengal Engineers .. . . .	622
Meteorological register at Bareilly in 1831 H. S Boul- derson .. . . .	641
Meteorological tables, January to November, 656, 101, 160, 216, 272, 328, 381, 440, 496, 550, 608	

III .  
(1831)

Register of the weather at Futtehgar, (Lat 27° 21' Long. 79° 30' E) from April 1832, to October 1833 M P Edgeworth, C S .. . . .	46
Abstract of a Meteorological register kept at Mozaffarpur, in Tirhut (Lat 26° 7' 29" N. Long 85° 24', 80" E) T Dashwood, C S .. . . .	79
A Catalogue of Stars to be observed with the moon, in March and April, with the view of determining the dif- ference of Longitude of the places whereat they may be observed John Curnin, F R A S .. . . .	94
Climate of Seringapatam Latitude 12° 45' N Long 76° 51' E .. . . .	138
Catalogue of Stars to be observed with the moon in May, 1834 .. . . .	139
Meteorological register for 1833 kept at Bancura J. MacRitchie .. . . .	190

## Journal.

Vol.  
III  
(1834.)

- Experiments on the preservation of sheet iron from rust in India James Prinsep . . . . . 191
- Latitude of the Church Bungalow at Nasirabad, by altitudes (170) of Polaris out of the Meridian, observed with a Troughton's 18-inch Altitude and Azimuth circle. Col. Thos Oliver . . . . . 243
- On Catadioptric Microscopes J W Laidlay . . . . . 288
- Observations of the Moon and Moon-culminating Stars at Sehanpur, Nasirabad and Dholeswar with the Longitudes deduced . . . . . 297
- On the influence of the moon on Atmospheric Phenomena Rev R Everest, M G S, M. A S, . . . . . 315, 631
- On the Measurement of the Ilahy Guz of the Emperor Akbar W. Cracroft . . . . . 360
- Table of the Times of high water at the principal places between Calcutta and Point Palmiras P. G. Sinclair . . . . . 403
- Note on the Brown liquid, contained in the cylinders, from Manikulya Jas Prinsep . . . . . 567
- Meteorological registers, January to December, . . 56, 104, 152, 208, 256, 312, 368, 424, 480, 544, 600, 656
- Abstract of a Meteorological Register kept at "Caneville," Masuri S M Boulderson . . . . . 230
- Comparison of the Heights of the Barometer, with the distance of the Moon from the Celestial Equator. Rev. R Everest . . . . . 252
- Collimation Error of Astronomical Instruments. J. G. Taylor, H C Astronomer, Madras . . . . . 258
- Results of the observations made on the Tides at Madras, from the 31st May, to the 10th October, 1821, by means of a Tide-gauge fixed near the north-east angle of the Fort . . . . . 325
- Register of the Thermometer at Ambala, for 1834 M. P Edgeworth, C S . . . . . 405
- Horary, Meteorological observations made at Calcutta on the 21st—22nd September. James Prinsep, Secretary . . . . . 574
- Application of iron Rods, proposed to compensate for the strain occasioned by the tension of the strings upon Piano Fortes, thereby to prevent warping, and to render them more durable and better adapted to keep longer in tune. Col. D Pre-grave . . . . . 631

Journal

	Extracts from a Meteorological Journal, kept at Kandy, Ceylon Captain Ord, R E . . . . .	709
	Abstract of Meteorological observations at Nasirabad. Lieut-Col Thomas Oliver . . . . .	48
	Longitude of Nasirabad by lunar transits and by observations of Moon Culminating Stars Lieut.-Col. Thomas Oviler . . . . .	52
	Root of the new iron foundery at Kasipur near Calcutta	111
	On the amount of rain-fall at Calcutta, as affected by the Declination of the Moon Rev R Everest . . .	207
	Rules for Calculating the lengths of the Drop-bais of suspension Bridges, the length and deflection of the chain rise of the roadway Capt J Thomson . . . . .	222
	Table shewing the weight or pressure which a cylindrical wrought-iron bolt will sustain when supported at the ends and bonded in the middle of its length Capt J. Thomson . . . . .	225
	A table of the Scantlings of Beams of Teak or Saul Wood, to sustain a Terrace roof not exceeding seven inches in thickness, the deflection not to exceed one-fortieth of an inch for each foot of length Capt J. Thomson . .	227
	On the temperature of deep wells to the west of the Jamna Rev R Everest . . . . .	229
	Range of the Barometer and Thermometer, at Port Louis, Mauritius, in 1828 L Geoffroy . . . . .	715
	Meteorological Registers for Jan to Dec . . . . .	64, 120, 184, 240, 296, 360, 476, 412, 532, 588, 652, 716

V  
(1836)

	Horary Observations of the Barometer, Thermometer and Wet-bulb Thermometer, made at Calcutta on the 21st and 22nd of December, 1835 and on the 21st and 22nd March, 1836 H Barrow . . . . .	51
	On the method employed to remove the Vaulted Roof of St Peter's Church in Fort William, illustrated by a Section . . . . .	208
	Note on the occasional existence of fresh-water on the surface of the Ocean C Brownlow . . . . .	239
	On the Revolution of the Seasons Rev R Everest	251
	Meteorological Register kept at Bangalore. Dr J Mouat	296

Journal	Meteorological observations taken every hour at Bangalore in the Hospital of H M 13th Dragoons from 6 A M of the 21st to 6 P M of the 22nd March, 1836, in conformity with Sir J. Herschel's instructions Dr. J. Mouat ..... 293
Vol V (1836)	<p>Horary observations taken at Dadupur, in conformity with Sir John Herschel's circular by Col Colvin, Lieut Baker, Lieut. Druand, Engineers .... 299</p> <p>Experimental Researches on the Depressions of the Wet-bulb Hygrometer. James Prinsep, Sec .... 396, 828</p> <p>Note on the Nautical Instruments of the Arabs J Prinsep..... 784</p> <p>A comparative view of the daily range of the Barometer in different parts of India. J Prinsep Sec. .. . . 816</p> <p>Meteorological Registers for April, May, September, and December ..... 256, 320, 600, 836</p>
VI (1837)	<p>Meteorological Register ..... 160</p> <p>On the Revolution of the Seasons, Rev. R Everest.... 303</p> <p>Observations of the Magnetic dip and intensity at Madras T. G Taylor, H C Astronomer ..... 374</p> <p>Barometrical elevations taken on a journey from Katmandu to Gosainsthan, a place of pilgrimage in the mountains of Nipal. Chhedu lohar, a smith in the employ of Captain Robinson ..... 696</p> <p>Meteorological Registers kept in Darjiling from April to August, 1837. Dr. H. Chapman ..... 700, 888</p> <p>Abstract of Meteorological Register kept at Kathmandu for July and August, 1837. A. Campbell, Nipal Residency 889</p> <p>Notes on the Musical, Agricultural and other instruments of the Nipalese A Campbell, M D ..... 953</p>
VII (1838)	<p>Abstract of a Meteorological Register kept at the Kathmandu Residency for September, 1837 A Campbell, Nepal Residency ... . . . . . 83</p> <p>Meteorological Register kept at Darjiling, for September to November, 1837 ..... 84</p> <p>On a remarkable heat observed in masses of brine kept for some time in large reservoirs G. A. Prinsep .... 207</p>

Journal

On the Reg-Ruwan or moving sand, a singular phenomenon of sound near Cabul with a sketch Capt Alex Burnes . . . . .	324
Account of the Hurricane or Whirlwind of the 8th April, 1838 J Floyd (communicated by J H Patton, Magistrate of the 21-Pergunas) . . . . .	422
On the spontaneous heating of brine G A Prinsep	1014
Meteorological Registers for January, February, and August to December . . . . .	92, 172, 750, 838, 918, 990, 1064

VIII  
(1839)

Remarks upon the Rain and Drought of the last eight seasons in India Rev Everest, Landour . . . . .	313
On the use of Wells, &c, in Foundations, as practised by the natives of the Northern Doab Captain Cautley, Superintendent of the Doab Canal . . . . .	341
Researches on the Gale and Hurricane in the Bay of Bengal on the 3rd, 1th, and 5th of June, 1839, being a First memoir on the Law of Storms in India Henry Piddington . . . . .	559, 631
Memoranda relative to the experiments on the communication of Telegraph signals by an induced Electricity W B O'Shughnessy, M D, Professor of Chemistry, Medical College, Calcutta, and Officiating Joint Secretary to the Asiatic Society, Bengal . . . . .	714
On an Aerolite presented to the Society . . . . .	822
Description of an Astronomical Instrument presented by Raja Ram Sing of Khota to the Government of India J J Middleton, of the Hindu College, Calcutta. . . . .	831
Memorandum on the explosion of gunpowder under water by the Galvanic battery, with a notice of the successful destruction of the "Equitable," at Fulta Reach W B. O'Shughnessy . . . . .	851
Meteorological Registers for January, February, and July to November . . . . .	76, 158, 621, 692, 777, 867, 971

IX  
(1840)  
Pt I

Memorandum on the differences of the Meridian of the Observatory at Madras and the Flagstaff of Fort William and of the Cantonment of Futtehgarr in the Doab Col J. A Hodgson, late Surveyor General of India	75
A Second Memoir with reference to the Theory of the Law of Storms in India being researches relating to the Storms	

Journal	of the 19th to the 21st Sept at the head of the Bay of Bengal, to the great Hurricane at Coringa on the 16th Nov. 1839; and to another off the island of Preparis on the 22nd Nov Henry Piddington ..... 107, 397
Vol IX (1840)	Meteorological Tables .... 95, 217
Pt II.	Report on a line of Levels taken by order of the Right Honorable the Governor-General, between the Jumna and Sutlej rivers Lieut W. E Baker, Supt of Canals W of Jumna ..... 688 A Third memoir with reference to the theory of the Law of Storms in India, being researches relating to the Hurricane in the Bay of Bengal and at Cuttack, from 27th April to 1st May, 1840 H Piddington ..... 1009 The Galvanic Battery in its various practical applications as an igniting Agent Lieut R Baird Smith, Bengal Engineers ..... 1119
X* (1841.)	On Lightning Conductors to Powder Magazines W B O'Shaughnessy ..... 6 Succinct review of the observations of the tides in the Indian Archipelago, made during the year 1839 by order of His Excellency the Governor-General of his Netherlandish Majesty's possessions, 20th October 1838 .... 302 A Fourth memoir on the Law of Storms in India being remarks and documents relative to the loss of the ship Golconda, in the Tyfoons of 22nd to 24th Sept 1840, in the China Sea Henry Piddington ..... 595 Remarks on the Construction of Newman's improved Portable Barometer, and on the mode of renewing the Gauge when lost Capt J T Boileau .... 957
XI (1842)	A Fifth memoir on the Law of Storms in India, being researches about the Madras Storms of May 16th, 1841, and an account of a whirlwind experienced by the French ship "Paquette des Mers du sud" off the Cap. Henry Piddington ... .. 6 On equations of condition for a quadrilateral common or recurrent Capt R Shortade .... 25 On improvement in Irrigation Lieut A Murray Miller ..... 100

<p>Journal</p> <hr/> <p>Vol. XI (1842)</p>	<p>Compendious Logarithmic tables Capt Shortrede .. 40</p> <p>Tables of Barometrical and Thermometrical observations, made in Affghanistan, Upper Sind and Kutch Gundava, during the years 1839-40 Dr Griffith ..... 49</p> <p>Register of the rise and fall of the tide at Prince of Wales' island and Singapore, October 1840 ..... 149</p> <p>Notes regarding the Meteorology and climate of the Cape of Good Hope Robert Trotter . . . . . 211</p> <p>On the theory of Angular Geometry S G Tollemache Heatly ..... 230</p> <p>Remarks on the Essay "on the theory of angular geometry." Captain Shortrede .. ..... 240</p> <p>Notes on the recent earthquakes on the North-Western Frontier Lieut R Baird Smith ... . . 242</p> <p>Register of the rise and fall of the tide at Prince of Wales' Island and Singapore . . . . . 263, 359</p> <p>Report upon the Construction of Philosophical instruments in India Capt J Campbell . . . . . 293</p> <p>A Sixth Memoir on the Law of Storms in India, being Storms in the China seas from 1780 to 1841 Henry Piddington .... . 605</p> <p>Comparison of the Areas of Plane and Spherical Triangles. Capt Shortrede ... . . . . 779</p> <p>A note on Capt Shortrede's remarks in page 240 of this volume . . . . . 782</p> <p>A Seventh Memoir on the Law of Storms in India, being the Calcutta hurricane of 3d and 4th June, 1842 Henry Piddington ..... 971</p>
<p>XII (1843)</p>	<p>A perpetual Moon table Capt R Shortrede . . . . . 103</p> <p>On the treatment of Geometry as a branch of Analysis S G Tollemache Heatly. .... . 110</p> <p>Barometrical observations taken to ascertain the Altitude of the station of Purulia, Ramghur district Capt Hannynghton..... 226</p> <p>A Companion to the Moon table Capt R Shortrede 231</p> <p>Remarks on some of the disturbing causes in Barometric observations Capt R Shortrede ... . . 293</p> <p>On Barometric heights Capt R Shortrede . . . . . 298</p> <p>Memoir on the application of Asphaltic Mastic to Flooring, roofing, and Hydraulic Works in India Capt Goodwyn, Engineers .... . 534</p>



<p>Journal</p> <hr/> <p>Vol XII (1843)</p>	<p>A general statement of the weather at Kotgarh and Subathu, for 1819-20-21 Capt Patrick Gerard ..... 749</p> <p>Meteorological register kept at Kathmandu Capt. G H Robinson ..... 768</p> <p>A Ninth Memoir on the Law of Storms in India, being the Puri and Cuttak storms of 2nd, and the Gya and Patna storms of the 5th and 6th October, 1842 Henry Piddington ..... 771</p> <p>A note on the winds, as influencing the Tracks sailed by Bermuda Vessels; and on the advantage which may be derived from sailing on curved Courses, when meeting with revolving winds. Lieut-Col Reid, Governor of Bermuda ..... 1104</p>
<p>XIII (1844)</p>	<p>Tenth Memoir on the Law of Storms in India, being the Madras and Masulpatam storm of 21st to 23rd May, 1843 Henry Piddington ..... 69</p> <p>Tables for determining the Elastic Force of Aqueous Vapour in the Atmosphere and the temperature of the dead-point by observations of a dry and wet bulb Thermometer, computed agreeably to Dr Apjohn's Hygrometric formula, under the direction of Capt J T. Boileau ..... 135</p> <p>On the Specific Gravity of sea water J. Middleton, ..... 766</p>
<p>XIV (1845)</p>	<p>Mr Ivory's tables of mean Astronomical refractions, revised and augmented Major J T Boileau, ..... 1</p> <p>A Eleventh Memoir on the the Law of Storms in India, being the storms in the Bay of Bengal and Southern Indian Ocean, from 26th November to 2nd December 1843 Henry Piddington ..... 10</p> <p>Observations on the rate of Evaporation in the open sea, with a description of an instrument used for indicating its amount. T W Ludlay ..... 213</p> <p>A Twelfth Memoir on the Law of Storms in India, being the Storms of the Bay of Bengal, 9th to 14th November, 1844 Henry Piddington ..... 357</p> <p>A Thirteenth Memoir on the Law of Storms in the Indian and China Seas being the Charles Heddle's Hurricane</p>

Journal	in the Southern Indian Ocean, 22nd to 27th February, 1845 Henry Piddington .. . . . 703
Vol XIV (1845)	A Fourteenth Memoir on the Law of Storms in India, being the Bay of Bengal, Ceylon, Malabar Coast, and Arabian Sea Storms of 29th November to 5th December, 1845 Henry Piddington .. . . . 878
XVI (1847)	Easiest method of taking and preparing drawings for Lithograph Capt M Kittoe . . . . . 368 Rehunge, on a large scale, by means of Nitre, of brittle or understandard silver, for Coinage purposes, and a ready mode of approximate assaying of silver W B O'Shaughnessy, . . . . . 557 Chart of the Bay of Bengal, note to accompany, with the average courses of its Hurricanes from 1800 A D to 1846 H Piddington .. . . . 847 Meteorological registers from July to November .. . . . 850, 1002, 1094, 1182, 1278
XVII (1848)	A notice of a remarkable Hot wind in the Zillah of Purneah H Piddington .. . . . 144 On the fall of rain at Patna C E Ravenshaw, .... 150 Temperature of the hot springs at Pir Mangal or Manga .. . . . 230 Daily rate of Evaporation in Calcutta .. . . . 236 A tabular view of the fall of rain, and of other Meteorological Phenomena in Calcutta from 1829 to 1847 Capt H E L Thuillier .. . . . 349 Method of determining the neutral point of Barometers Capt J C Haunington .. . . . 533 Fifteenth and Sixteenth Memoirs on the Law of Storms H Piddington .... 27, 517 Meteorological registers from July to December 1848 .. . . . 125, 239, 353, 475, 591 Resultant System for the construction of Iron Tension bridges. Major H Goodwyn.... .. 412
XVIII (1849)	Note on Iron Tension bridges Rev J Pratt. .... 249 A Seventeenth Memoir on the Law of Storms in India H Piddington .. . . . 252

<p>Journal</p> <p>Vol XVIII (1849)</p>	<p>Deviation of the Compass near Saugor in Bundelkund, a notice of a remarkable local phenomenon H Piddington . . . . . 410</p> <p>Meteorological registers from January to June, 1849, 88a, 182a, 286a, 418a, 552a, 647a, . . . . .</p> <p>Embankments of rivers, and the nature of over-flowing rivers in Diluvial Plains. Capt J D Cunningham.. 697</p> <p>Influence of forests on climate. W H Parish . . . . . 791</p> <p>An Eighteenth Memoir on the Law of Storms in India being the Cyclone of the 12th to 14th October 1848, in the Bay of Bengal H Piddington . . . . . 826, 869</p> <p>Meteorological registers for July, to September .. 759, 866, 987</p>
<p>XIX (1850)</p>	<p>Memorandum on the Storms experienced in Taitary, with suggestions relative to them H Piddington . . . 212</p> <p>A Nineteenth memoir on the Law of Storms in the Indian and China Seas H Piddington . . . . . 349</p> <p>Dust Storms of India P Baddeley . . . . . 390</p> <p>Tables for determining heights by the Barometer. Captain Hannington . . . . . 394</p> <p>Encrustation of Steam Boilers and pipes in India. Dr G. Buist . . . . . 419</p> <p>Answers to Mr Piddington's queries about Winds, Storms, &amp;c, in Tibet Dr A Campbell . . . . . 457</p> <p>Meteorological registers from January, to December of 1850 89, 189, 169, 349, 429, 499, 573, 575 577, 579, 581, 583</p>
<p>XX (1851)</p>	<p>A Twentieth memoir on the Law of Storms, in the Indian and China Seas, being the April Cyclone of the Bay of Bengal, 23rd to 28th April, 1850 H Piddington . . . . . 13, 195</p> <p>Chronometers, on the rates of, as influenced by the local attraction of ships and by Terrestrial Magnetism H. Piddington . . . . . 61</p> <p>Aneroid and Marine Barometers and Sympiesometers in Cyclones H Piddington . . . . . 219</p> <p>Influence of the Moon on the weather. J Middleton 275</p> <p>On the adaptation of the Aneroid for the purposes of Surveying in India. G. Buist . . . . . 320</p>

Journal	Meteorological registers from January to December of 1851 112, 217, 289, 369, 449, 451, 454, 535, 622, 627, 633 Monthly means of maximum and minimum pressures for 1841 to 1849, taken from the Meteorological register kept at the Surveyor General's Office, Calcutta .... 528
Vol XX (1851.)	
XXI (1852)	An Apparatus for distilling off the Mercury from an Amal- gam of gold and silver Henry Piddington ..... 403 Daily register of temperature during a part of 1850, at Mirut in the Upper Doab C Gubbins ..... 563 Dust Whirlwinds and Cyclones P F H Baddeley 140, 264, 333 On Filtering waters of tanks in large quantities for the use of towns H Piddington ... ..... 473 Influence of the Moon on the weather J W Beale.. 501 Twenty-first Memoir on the Law of Storms in the Indian and China Seas Henry Piddington ... .. 283 Meteorology of Rampur Bauleah for the year 1851 J R Bedford . ..... 593 Meteorological registers kept at the Surveyor General's Office, from January to December, 1852 ..103, 193, 280, 363, 443, 557, 558, 560, 562, 643, 645, 647 Meteorological observations kept at the Rangoon field hos- pital Dr J Fayer ..... 520, 622 Abstracts of Registers of temperature and fall of rain kept by Medical Officers in different parts of India Dr. Lamb ..... 383
XXII (1853)	Barometric waves in a Cyclone, Geometrical measurement of the distance from crest to crest of Henry Piddington, President Marine Court .. ..... 7 Meteorological registers kept at the Surveyor General's Office, Calcutta, for Nov and Dec 1852 .... 117 Meteorological register kept at the Office of the Secretary to Government, N W P, from August to December, 1852, and Jan to Oct, 1853 . . .217, 327, 424, 707 Meteorological observations, abstract of the results of the hourly, taken at the Surveyor General's Office, Calcutta 508, 599 Meteorological registers kept at the field hospital, Rangoon, for October to April .....113, 317, 421, 502, 596

Journal	A Twenty-second Memoir on the Storms of the Indian and China Seas Cyclones and Tornadoes of the Bay of Bengal, from 1848 to 1852 H Piddington . . . . . 1
Vol XXII (1853)	
XXIII (1854)	Notes upon some Atmospherical Phenomena observed at Darjiling in the Himalaya Mountains during the summer of 1852 Capt W S Sherwill . . . . . 49 Report of the dust whirlwinds of the Punjab Dr A Gardon . . . . . 365 A Twenty-third Memoir on the law of Storms in the Indian and China Seas, being the Peninsular and Oriental Steam Navigation Company's Ship <i>Precursor's</i> Cyclone of October, 1854 H Piddington . . . . . 505
XXIV (1855)	On a simple method of manipulation in the Calotype process J J Gray . . . . . 287 A Twenty-fourth Memoir on the law of Storms, being the Calcutta and Sunderban Cyclone of 14th and 15th May, 1852 H Piddington . . . . . 397
XXV (1856)	Report upon the progress of the Magnetic Survey, and the researches connected with it in Sikkim, the Kasia hills and Asam, April to December, 1855 Adolphe and Robert Schlagintweit . . . . . 1 Report upon the progress of the Magnetic Survey of India and of the researches connected with it in the Himalaya Mountains, from April to October, 1855 A and R Schlagintweit . . . . . 105 Report on the progress of the Magnetic Survey from January to May, 1856 Hermann Schlagintweit . . . . . 551
XXVI (1857)	Mean temperature and fall of rain at Darjiling, 1848 to 1855 J R Withecombe . . . . . 63 Reports on the Progress of the Magnetic Survey and of the researches connected with it from November, 1855, to April, 1856 A and R Schlagintweit . . . . . 51, 97 Report on the proceedings of the officers engaged in the Magnetic Survey of India . . . . . 208

Journal.	Discussion of some Meteorological observations made at Parasnath hill Dr G Von Leibig .. . . . 1
Vol XXVII (1858)	<p>Bhishara's knowledge of the Differential Calculus Bapu Deva Shastri, Professor of Mathematics, Sanskrit Col- lege Benares .. . . . 213</p> <p>On Hypsometrical measurements by means of the Baro- meter and the boiling point Thermometer James Bur- rows .. . . . 337</p> <p>A register of the temperature of the Surface of the Ocean from the Hooghly to the Thames A Campbell . 170</p> <p>Account of a Cyclone in the Andaman sea, on the 9th and 10th April 1858 Dr G Von Leibig .. . 323</p> <p>Twenty-fifth Memoir on the Law of Storms in India being the Honorable Company's Steamer Pluto's Cyclone in the Gulf of Martaban, 23rd and 24th April, 1854 Henry Piddington .. . . . 177</p> <p>The great Indian Arc of Meridian and the Figure of Earth. The Venerable Archdeacon Pratt ... 20</p>
XXVIII (1859)	<p>Reply to Mr Pratt's letter to the Asiatic Journal on the Indian Arc of Meridian Capt J F Tennant, B E, G T Survey of India . . . . . 17</p> <p>Second letter on the Indian Arc J H Pratt . . 22</p> <p>On the influence of Mountain-attraction on the determi- nation of the relative heights of Mount Everest near Darlung, and the lofty peak, lately discovered near Kashmir J H Pratt .. . . . 150</p>
XXIX (1860)	<p>Memorandum on the great flood of the river Indus which reached Attock on the 10th August 1858 Capt T G Montgomerie . . . . . 128</p>
XXX (1861)	<p>On the translation of waves of water with relation to the great flood of the Indus in 1858. J Obbard . 266</p> <p>On the Physical difference between a rush of water like a torrent down a channel and the transmission of a wave down a river, with reference to the inundation of the Indus, as observed in Attok, in August, 1858 J H Pratt .. . . . 274</p>

Journal	Notes on the rainfall in the basin of the river Mahanady and the floods consequent thereupon. Capt J. C Harris, 216
Vol XXX (1861)	The great Comet of 1861 Rev Dr W S Mackay .. 279 Discovery of the new planet, <i>Asia</i> N R Pogson.... 291
XXXI (1862)	*On Colebrooke's determination of the date of the <i>Vedas</i> Ven'ble Archdeacon J H Pratt ..... 49
XXXII (1863)	Progress of the Trigonometrical Survey, being extracts from a report from Major J T Walker .. ..... 111 Abstracts of the results of the hourly Meteorological observations taken at the Surveyor General's Office, Calcutta, for July to December, 1862, and January to July, 1863 ..... 1, xxv, xlix, lxxii
XXXIII. (1864)	Extract from report of the operations of the great Trigonometrical Survey of India during the year 1862-63 Major J. T Walker ... ..... 381 Abstract of the results of the hourly Meteorological observations taken at the Surveyor General's Office, Calcutta, for April to June, 1864 ..... xxv Abstract of the Meteorological observations taken at Gangarooma, near Kandy, Ceylon, September 1863 to February, 1864 ..... xvii, lxi Note on the hailstorm of Thursday the 24th March Henry F. Blanford .... ..... 530 Abstract of the results of the hourly Meteorological observations taken at the Surveyor General's Office, Calcutta for July to December, 1864 ..... xlix
XXXIV. (1865)	On the degree of uncertainty which local attraction, if not allowed for, occasions in the map of a country, &c , and speculations on the constitution of the Earth's crust. Archdeacon Pratt ..... 34 On the Pendulum operations about to be undertaken by the Great Trig Survey of India J. P Basevi, R E, Trig Survey . ..... 251 Meteorological observations at the Surveyor General's Office, i, ix, xxv, xxxiii

Journal.	Meteorological observation taken at Gangarooma, near Kandy xvii
Vol XXXIV. (1865)	
XXXX Pt II (1866)	Observations on the Astronomical points determined by the brothers Schlagintweit in Central Asia Capt Golu- bief ..... 46 Comparative Hypsometrical and physical tableau of High Asia, the Andes, and the Alps Robert Schlagintweit, Professor at Giessen ..... 51 Meteorological Observations at the Surveyor General's Office, Ivii Ditto ditto taken at Gangarooma, near Kandy, Ceylon, in May, 1864 ..... lxii
XXXVI Pt II (1867)	Meteorological observations at the Surveyor General's Office xvii, xxxiii, xli
XXXVII Pt II (1868)	Diagram of monthly mean curves of Barometer and Ther- mometer, and of rainfall, Calcutta, 1856-65 Col T E. Gastrell ..... 77 The adjustment of the Hindu Calendar P Ch Ghose 181 Meteorological observations at the Surveyor General's Office ..... lxxv
XXXVIII Pt II (1869)	Meteorological observations at the Surveyor General's, Sep- tember 1861 to October 1869 .. ... 1, lxxix
XXXIX Pt II. 1870	Meteorological observations at the Surveyor General's Office 1, lxxxiii
XL Pt II (1871)	Meteorological observations at the Surveyor General's Office lxxiv Note on the error of the Calcutta Standard Barometer com- pared with those of Kew and Greenwich H F Blan- ford ..... 446 On the discharge of long Overland Telegraph Lines H. Schwendler ..... 78 On a quantitative method of testing a "Telegraph earth" W E Ayrtton ..... 177



Journal	On differential Galvanometers L Schwendler ..	141
Vol XLIII Pt II (1873)		
XLIII Pt II. (1871)	On the General Theory of Duplex Telegraphy L Schwen- dler Part I . . . . .	1
	Part II . . . . .	218
XLIV (1875)	On some recent evidence of the Variation of the Sun's heat II F Blanford . . . . .	21
	On the general theory of Duplex Telegraphy, Part III L Schwendler .. . . .	17
	Photography in connection with the observations of the Transit of Venus at Rurki, 9th December 1874 J. Waterhouse .. . . .	61
XLV. Pt II (1876)	On certain protracted irregularities of Atmospheric Pres- sure in the Indian Monsoon region, and their relations to variations of the local Rainfall II F Blanford ..	27
	An account of experiments made in 1875 and 1876 in various parts of India for the purpose of comparing the observed temperature of the Dew point with that com- puted from the Psychrometer by different methods of re- duction II F Blanford . . . . .	53
	On the Physical explanation of the Inequality of the two Semidiurnal oscillations of Barometric Pressure. H F Blanford . . . . .	319
	On the General Theory of Duplex Telegraphy L Schwen- dler . . . . .	1
XLVI Part II (1877)	Note on the variation of the Barometric Tides in connection with diurnal land and sea-breezes H F Blanford	45
	Catalogue of the recorded cyclones in the Bay of Bengal up to the end of 1876. H F Blanford ...	328
	Memorandum on the diurnal variation of atmospheric pres- sure at the Sandheads C Harding .....	339
XLVII Pt II (1878)	On the proper relative sectional area for Copper and Light- ning Rods R S Brough . . . . .	191
	Great snowfall in Kashmir R Lydekke .....	177

Journal	An account of the Tidal observations in the Gulf of Cutch conducted by the Trigonometrical Survey J. Waterhouse . . . . . 26
Vol. XLVII Pt II (1878)	The application of Photography to the reduction of Maps and Plans by Photo-Mechanical and other processes J Waterhouse . . . . . 53
XLVIII (1879)	On the diurnal variation of rainfall frequency in Calcutta H F Blanford ... .. 41 On the operations for obtaining the discharges of the large rivers in Assam during 1877-78 H J Harman 4 On a new standard of Light L Schwendler . . . . 83 On some experiments made at H M's Mint in Calcutta on coming silver into rupees J F Tennant . . . . . 56
XLIX Pt II (1880)	On a simple method of using an Insignificant fraction of the main current produced by a Dynamo-Electric Machine for Telegraph purposes Louis Schwendler . . . . 1 Account of the verification of some Standard Weights, with considerations on Standard weights in general. J F Tennant .. . . . . 41 On the high Atmospheric pressure of 1876-78 in Asia and Australia in relation to the Sun Spot Cycle H F Blanford ... .. 70 On some experiments instituted to supply all the lines terminating at the Calcutta Telegraph office with current tapped from the main current produced by a Dynamo-electric machine Louis Schwendler 167
L Pt II (1881)	On the relations of Cloud and Rainfall to Temperature in India, and on the opposite variations of Density in the higher and lower Atmospheric strata H F Blanford 69
LI Pt II (1882)	Some further results of Sun-thermometer observations with reference to atmospheric absorption and the supposed variation of the Solar heat H F Blanford ... 72
Proceedings (1865)	On whirlwind at Pandua Chunder Shekhur Chatterjee 124

Proceedings	Recorded solar eclipses. Major Ellis . . . . .	172
(1867)		
(1868)	On discrepancies in the observations of the Cyclone of 1867 . . . . .	66
	On an instrument used by native Captains for determining their latitude T Oldham . . . . .	201
	On the Eclipse T Oldham . . . . .	218, 228
	Notes on the eclipse Major F Tennant . . . . .	127
	Results deducible from the Eclipse Major F. Tennant	273
(1870)	On North-Westers H F Blanford . . . . .	95
	On the Assay of Silver. Dr H E Busteed . . . . .	276
(1871.)	On Inertia and Time W E Ayrton . . . . .	160
"	On a new Galvanometer W. E Ayrton . . . . .	217
	On the total Eclipse of December 11th J F Tennant	128
(1872)	On Syphon Recorder W E Ayrton . . . . .	51
	New joint detector L Schwendler . . . . .	92
	On Whirlwind at Satkhira W G Willson . . . . .	96
	Meteorological observations at the Surveyor General's	i
(1874)	On the correction of Copper-plates by Electrodeposition J. Waterhouse . . . . .	1
	Meteorological observations at the Surveyor General's	i
(1875)	On specimens of telegraph cable penetrated by grass L Schwendler . . . . .	158
	Meteorological observations at the Surveyor General's	i
(1876)	On the influence of Eosin on the Photographic action of the solar spectrum upon the Bromide and Bromiodide of silver Capt J Waterhouse . . . . .	12
	Meteorological observations at the Surveyor General's	i

Proceedings- (1877)	A theoretical deduction of the best resistance of a Telegraph receiving instrument R. S. Brough . . . . . 184
	Note on Professor Graham Bell's Telephone R. S. Brough . . . . . 252
	On a case of lightning, with an Evolution of the Potential and quantity of the discharge in absolute measure R. S. Brough . . . . . 56
	On the diameter of the wire employed in winding an electromagnet to produce the Maximum Magnetic effect R. S. Brough . . . . . 134
1878	Autographic records of Nor'-Westers H. F. Blanford 103
	On Meteorological Charts H. F. Blanford . . . . . 104
	On tidal observations Col. J. T. Walker . . . . . 106
	Solar Photographs Capt. J. Waterhouse . . . . . 119
	Peculiarities in hailstones at Khulná H. G. Roney 125
1879	Photograph of the solar disc J. Waterhouse . . . . . 140
1880	Balfour Stewart's Actinometer H. F. Blanford . . . . . 51, 52
	Drawings of hailstones Col. H. H. Godwin-Austen 103
	Crook's Electrical Radiometers Rev. E. Lafont . . . . . 91
1881	Van Rysselberghe Meteorograph H. F. Blanford . . . . . 65
1882	Spuit-levelling operations in connection with the tidal observations of the Indian Survey J. T. Walker 78

## II.

## GEOLOGY.\*

(N B—Mineralogical contributions are distinguished by [M])

As Res Vol I. 1788		Gold of Lamong Macdonald ... .. 336
V 1795.		Barren island and its Volcano Lieut. R H Colebrooke 397 Geology of Perwattam C Mackenzie ... .. 303
VI 1799	[M]	Petroleum wells in Burma Capt H Cox ..... 127
XI. 1810.		An account of the Petrifications near the Village of Truviera in the Carnatic Capt. J. Warren ..... 1
XII 1816.		Boring made near the river Hooghly, in the vicinity of Calcutta, from May to July 1814, in search of a Spring of pure water Sir Edward Hyde East ..... 542
XIV 1820	[M]	Analysis of the Snake-stone. J Davy ..... 317
XV. 1825.		On the Diamond Mines of Southern India H W. Voysey ..... 120 On the building Stones and Mosaic of Akberabad or Agra H Voysey .... .. 429
XVI. 1828.	[M]	On the <i>Zehr Mohereh</i> or snake-stone. Capt J D Herbert 382
	[M]	Notice of the occurrence of Coal and Lignite in the Himalaya Lieut P T Cautley ..... 387
	[M]	Note on the occurrence of Coal, within the Indo-Gangetic Tract of Mountains Capt J D Herbert .. 397
* Some Geographical papers not included in this section contain information on Geological subjects Palaeontological papers are to be looked for under Zoology and Botany.		



As Res. Pt. II 1833.	[M]	Note on the discovery of Platina in Ava James Prinsep 279
Journal Vol. I. 1832.	[M]	Examination of Minerals from Ava J Prinsep, Sec ... 14
		Earthquake at Lahore, 25th Jan 1832 ... .. 34
	[M]	Salt mines of the Panjab Lieut A Burnes ..... 145
	[M]	Mode of extracting the gold dust from the sand of the Ningthie river ..... 148
	[M]	Smelting of Iron in the Kasia hills .. .... 150
	[M]	Chinese Vermilion . . . . . 151
		Geological Sketch of Masuri and Landour in the Himalaya. F H Fisher, .. .... 183
	[M]	Gypsum of the Himalaya Capt P T Cautley ..... 289
	[M]	Litharge of Ava ... ..... 305
	[M]	Oriental accounts of the precious Minerals . . . . . 353
	[M]	Remarks on a late paper in the Asiatic Journal on the Gypsum of the Himalaya Rev R Everest .. . 450
		Some observations on the quantity of earthy matter brought down by the Ganges. Rev R Everest ... . 238, 519
II 1833.	[M]	Discovery of the Silhet Coal Mines ..... 47
	[M]	Short description of the Mines of Precious Stone in the dis- trict of Kyakpyau in the Kingdom of Ava ..... 75
		Geology of Hyderabad. H W Voysey .. 298, 392
	[M]	Native Sulphate of Alumina from the Aluminous Rocks of Nipal J Stevenson ... . 321
	[M]	Native Sulphate of Iron from the Hills of Behar and used by native Dyers of Patna J Stevenson ..... 321
	[M]	Description of the salt works at Panchpadder, Mewar Lieut A Burnes .. . 365
		Report of the Committee appointed on the 27th March, 1833, to consider the expediency of recommending to the Government the continuance of the Boring experiment 369
		Some Geological remarks made in the country between Mirzapur and Sagar, and from Sagar northwards to the Jumna Rev R Everest ..... 475
	[M]	Alum or Sulphat of Nipal A Campbell, .... 482

Journal Vol II 1833	[M]	A visit to the Gold Mine at Batting Moring, and summit of Mount Ophu or Gunong Ledang, in the Malay peninsula Lieut J T Newbold . . . . . 497
	[M]	An Earthquake at Kathmandu A Campbell 564, 636 Note on the Coal discovered at Khyuk Phyu, in the Arracan district . . . . . 595 Notes on the specimens of the Kankar Formation, and on fossil Bones collected on the Jamna Capt E. Smith, 622
III 1834		Climate of the fossil Elephant Rev R. Everest . . 18
		Churia Punji and a detail of some of the favourable circumstances which render it an advantageous site for the erection of an Iron and Steel manufactory Lieut-Col T C Watson .. . . . 25
		Tufa formation in Persia .... . 54
		Geology of the country between Hoshungábád on the Narbada and Nágpur, by the direction of Baitul Lieut John Finnis . . . . . 71
		Explanation of the sketch giving a Geological Section of the strata from Numach to Merta published in the Asiatic Researches, Vol XVIII James Hardie . . . . . 238
		Notes relative to the collection of some Geological Specimens, in the Kasia Hills between Asam and Nanklow W Cracoft, .. . . . 293
		Note on the Temperature of wells at Náhan .. . 366
		Geological Section across the Valley of the Narbada, from Tendukheri to Bittoul J G Spilshury, .. 388
	[M]	Observation on the Golden ore, found in the Eastern Provinces of Mysore in 1802 Lieut John Warren .. 463
	[M]	Nepalese method of refining Gold Dr A Campbell 622
IV 1835.		Notice of some fossil impressions occurring in the Transition Limestone of Kumaon Dr J McClelland .
		Temperature of Wells .. ... 655
	[M]	Jumma Alluvium Edmund Dean . . . . . 261
	[M]	Gold-washing of the Gumti river Lieut Cautley 279 Geological sketch of the Nil-guris Dr P N Benza, 413 Mr Stevenson on the Pea Stalactite of Tibet . . 520 On the composition of the Rágun Petroleum with remarks on the composition of Petroleum and Naphtha in general William Gregory, . . . . . 527



<p>Journal Vol IV. 1835.</p>	<p>[M] Minerals of the Trappean rocks of Bombay ... 530</p> <p>[M.] Notice of two beds of Coal discovered. Captain J R Ouseley, ... 648</p> <p>Geological observations made in a journey from Masuri to Gangauti Rev R Everest ... 690</p> <p>[M] Copper Ore from Nellore James Prinsep .. 574</p> <p>[M] Mineral Exudation from Ghazni H Piddington ..... 696</p> <p>[M.] Coal beds in Asam Captain T Jenkins .. 704</p>
<p>V 1836.</p>	<p>Notes explanatory of a Collection of Geological Specimens from the country between Hyderabad and Nágpur. J. G Malcolmson, . . . . . 96</p> <p>Notice of a visit to the Valley of Cashmir in 1836 Baron Hugel ... 184</p> <p>Notes on the Geology of the country in the Neighbourhood of Maulmyeng (Moulmein) Capt W Foley 269</p> <p>Volcanic Scoria in the Southern Peninsula Lieut. J T. Newbold . . . . . 670</p> <p>Geological notes on the Northern Conkan and a small portion of Guzerat and Kattywar Charles Lush . 761</p>
<p>VI. 1837</p>	<p>Memorandum of the progress of sinking a well in the bund of Chandpur, near the foot of the hills William Dawe 52</p> <p>Hot Spring of Lohand Khad Capt C M Wade . 153</p> <p>Report of the progress of the Boring Experiment in Fort William Major T. M Taylor With notes, by J<sup>c</sup> Prinsep 234</p> <p>[M] Catalogue of Geological Specimens from Kumaon presented to the Asiatic Society Dr McClelland . .. 653</p> <p>Strata passed through in a Boring at Gogah, Gujerat. Lieut. George Fulljames ... 786</p>
<p>VII 1838.</p>	<p>On the difference of level in Indian Coalfields, and the causes to which this may be ascribed. J McClelland 65</p> <p>Section of a Hill in Catak supposed to be likely to contain Coal M Kittoe ... 152</p> <p>[M] Table of Indian Coal analyzed at the Calcutta Assay Office, including those published in the "Gleanings in Science," September 1831, arranged according to localities, extracted from the Report of the Coal Committee ..... 191</p>

Journal Vol VII 1838	[M]	Native account of Washing for Gold in Asam Muneeram	621
	[M]	Further information on the same, extracted from Capt Hannay's communication to Capt Jenkins, Agent to the Governor-General in Assam .....	625
	[M.]	Coal discovered in Tenasserim Provinces Dr Helfer .	701
	[M]	Report on ten specimens of Coal from Capt Burnes .	848
		Supposed Coal Field at Bidjeygurh (Vijayagar) George Osborne . . . . .	839
	[M]	Copper mines of Kumaon. Capt Drummond ...	934
VIII. 1839	[M]	Report upon the Coal beds of Asam The Coal and Iron Committee .....	948
	[M]	Coal and Iron Mines of Talchir. M Kittoe	137
	[M.]	Papers relative to the New Coal Field of Tenasserim..	385
	[M]	Report by Lieut John Glasfurd, on the progress made up to the 1st May 1839, in opening the experimental Copper mine in Kumaon ..	471
		Mr Middleton on the Meteors of August 10th, 1839	495
	[M]	Note by Messrs Jessop & Co of Calcutta, on the smelting of Iron Ore of the district of Burdwan . .	683
		Note on the river Gumti, with a section of its bed. V. Trigear . . . . .	712
		Trip through Kunawur, Hungruq and Spiti undertaken in the year 1838, under the patronage of the Asiatic Society of Bengal Lieut Thomas Hutton .	901
		Geology etc of the country extending between Bhar and Simla . . . . .	1037
	[M]	Note, on the process of washing for the Gold dust and Diamonds at Heera Khoond J R Ouseley	1057
IX Pt I. 1840	[M]	Memoranda respecting the existence of Copper in the territory of Luz, near Bela Capt De la Hoste .	30
	[M]	Note on discoveries of gems from Kandahar Lieut Conolly	97, 100
	[M.]	Report of the Coal Committee ....	198
		Note on the Map attached to the report of the Coal Committee Capt Macleod, ...	582
		Boring operations in Fort William, from their commencement in December 1835, to their close in April, 1836 Col D McLeod . . . . .	677
		Physical Geography of Seistan Cap Conolly . . .	710

Journal Vol. X 1841	[M ]	Mines and Mineral resources of Northern Afghanistan. Capt. Drummond . . . . . 74
		Valley of the Spiti and the route from Kotgar Capt. Hutton . . . . . 198
	[M ]	Memoir on the Coal found at Kotah, with a note on the Authracite of Dumtinnapilly, (H H the Nizam's do- minious). W Walker . . . . . 341
	[M ]	Discovery of Coal in a new site W Dunbar . . . 300
		Geology of Hunumkunda (Nizam's Territory) &c —A W Walker . . . . . 471, 725
	[M ]	Tin of the Province of Mergui Capt G B Tremenheere 845
	[M ]	Manganese of Do Do 852
XI 1842		Observations of Meteors, on the night between the 12th and 13th Nov 1841, made at the Magnetic Observatory at Simla Captain J T Boileau . . . 964
	[M ]	On Porcelain Clay found at Mangalore A T Christie, 967
		Additions to Capt G B Tremenheere's report on the Tin of Meigui, communicated to the Asiatic Society, through the Secretariat of the General Department 24, 289
	[M ]	Extract from a letter to Government on the above 'from Dr McClelland, Secretary to the Coal Committee 25
		Notes on the recent Earthquakes on the North-Western Frontier Lieut R Band Smith . . . . . 242
	[M ]	On a cylinder and certain gems collected in the neighbour- hood of Herat Major Pottinger . . . . . 316
		Geology of Bundelcund and Jubbulpur Di J Adam 393
		Report of the Mineralogical Survey of the Himalaya Moun- tains lying between the rivers Sutlej and Kali illus- trated by a Geological Map Capt J D Herbert, 1
		Coal field of the Dámuda Valley and the adjacent countries of Bubbhum and Puruha J Homfiay 728
	[M ]	Contributions towards a history of the development of the Mineral resources of India S G Tollemache Heatly 811
	[M ]	Second report on the Tin of Meigui Capt G B Tremen- heere . . . . . 839
	[M ]	Notes on the Iron of the Kasia hills Lieut Yule, 853
		Notes, principally Geological, on the Tract between Bellary and Bijapore Capt Newbold, . . . . . 929, 941

Journal	Meteors observed at Allahabad on the 10th of August, 1842	
Vol XI	Capt Shortrede, .. . . .	959
1842	On Specimens offered to the Asiatic Society of Bengal	
	Newbold .. . . .	1131
XII	First report by Dr Jameson of his deputation by Govern-	
1843	ment to examine the effects of the great inundation of the	
	Indus .. . . .	183
	Brigadier Twemlow on Artificial Fuel (received from the	
	Agricultural Society) .. . . .	228
	Account of a luminous Meteor seen at Chaika, lat 24° 06'	
	long 81° 02' on the morning of the 11th April, 1842	
	Capt Shortrede .. . . .	235
[M]	Analysis of Iron ores from Tavoy and Mergui, and of Lime-	
	stone from Mergui Di A Ure, London .. . . .	236
	Memoir on Indian Earthquakes Pts I and II Lieut	
	R Baud Smith .. . . .	258, 1029
[M]	Report on the Government experimental workings of the	
	Copper Mines of Pokri in Ghurwal, with notices of	
	other Copper Mines G S Lushington	453, 769
	Report of visit to the Pakchan river, and of some Tin locali-	
	ties in the southern portion of the Tenasserim Provinces	
	Capt G B Tremeneere, .. . . .	523
[M]	Contributions towards a History of the development of the	
	Mineral resources of India S G Tollemache Heatly	542
	As-Soyuti's work on Earthquakes, called, <i>Kashf-as-salsalah'</i>	
	<i>au wasf Az-Zal-Zalab</i> , translated from the Arabic A	
	Sprenger .. . . .	741
[M]	Native Copper found in Round Island Cheduba group, south-	
	east of Ramri, forwarded to the Society by Capt Camp-	
	bell S Mornay .. . . .	904
	Memoranda of Earthquakes and other remarkable occurrences	
	in Upper Assam from January, 1839, to Sept, 1843	
	Capt Hannay .. . . .	907
XIII	Geological Map of Capt Herbert's Himalaya Survey ..	171
1844	Note on a recent fossiliferous fresh-water deposit in Sou-	
	thern India, with a few remarks on the origin and age of	
	Kunkur Capt Newbold .. . . .	313



Journal Vol XIV 1845 [M]	Notes, chiefly geological, across South India from Pondicherry, to Bellore, through the great gap of Palghat-cherry Capt Newbold . . . . . 759 On the Assam Petroleum beds Capt P S Hannay . 817 Remarks upon the occurrence of granite in the bed of Narbada Capt J Abbott . . . . . 821
XV 1846 [M]	Notes, on the Coast of Coromandel, from Pennour to Pondicherry Capt Newbold . . . . . 204 Geological features of Zillah Behar W S Sherwill 55 From Kumbakonam on the western Coast (S India), by the Devamunni and Nundibaunama Passes, easterly to Cum-bum, and thence southerly to Chittur, comprising a Notice of the Diamond and Lead excavations of Buswapur Capt Newbold . . . . . 380 From Seringapatam, by the Hegulla Pass, to Cannanore Capt Newbold . . . . . 315 Western Coast of South India Capt Newbold.... 224
XVI 1847 [M] [M] [M] [M]	Account of the process employed for obtaining Gold from the sand of the river Bers, with a short account of the Gold mines of Siberia Capt J Abbott . . . 226 Coal, a new kind of, from Aracan H Piddington 371 Singapore, including Notices of Sumatra and the Malay peninsula J R Logan . . . . . 519 667 Zillah Shahabad or Arrah Lieut W R Sherwill 279 Tremenheerite, a new carbonaceous Mineral H Piddington . . . . . 369 Notes, chiefly geological, from Gooty to Hyderabad, South India, comprising a brief notice of the old Diamond Pits at Dhone Capt Newbold . . . 477 Notes of an Excursion to the Pindari glacier, in September, 1846 Capt Ed Madden, . . . 226 596 Notice on the Ferruginous Spherules imbedded in sandstone from Lullutpore, Bundelcund H Piddington . 711 A description of the glaciers of the Pindur and Thuphinu rivers, Kumron Himalaya Lieut R Strachey 794
XVII 1848 [M]	Extract from a Memoir of some of the natural productions of the Angami hills and other parts of Upper Asam J W Masters . . . . . 57

Journal Vol XVII. 1848 Pt I	[M]	The ball Coal of the Burdwan Mines Henry Piddington	59
		Correspondence regarding the Coal beds in the Namsang Naga hills; Communicated by Capt T E Rogers	89
	[M]	Diamond in the possession of the Nizam H. Piddington	151
	[M]	A few observations on the probable results of a Scientific research after Metalliferous deposits in the Sub-Himalayan range around Darjiling R H Irvine,	..... 137
Pt II		Note on the motion of the glacier of the Pindui in Kumaon Lieut R Strachey	..... 203
	[M]	Report on the Salt Range and on its Coal and other Minerals. Dr Andrew Fleming	..... 500
	[M]	Meteoric iron from the Kharakpur hills H Piddington	538
		Notes on the eastern desert of Egypt, from Gebel Sprit by the ancient Porphyry quarries of Gebel Dukhan, near to Gebel Gir Hekekyan Bey	..... 584
XVIII 1849	[M]	Capt Sherwill's supplementry note On Meteoric Iron H. Piddington	..... 171
		Earthquakes in Assam	..... 172, 173, 174
	[M]	Ball Coal of the Burdwan Mines H Piddington	412
		Pind Dáidud Khan and the Salt Range A Fleming	661
		Note on the limits of perpetual Snow. Capt J D Cunningham	..... 694
		On the Physical Geography of the Himalayas B H. Hodgson	..... 761
		Remarks on the Snow line in the Himalaya. Capt Thomas Hutton	..... 951
XIX. 1850	[M]	Ball Coal of the Burdwan Mines H Piddington	57
	[M]	On Calderite, an undescribed Silico-iron-and-manganese Rock H Piddington	..... 115
		On the general Vibration, or Descent and Upheaval which seems, at a recent geological period, to have occurred all over the Northern Hemisphere George Buist	..... 302
	[M]	Haughtonite H Piddington	..... 452
	[M]	Note on specimen of Iron from the Dhunakar hills, Birbhum H Torrens	..... 77

Journal Vol XIX. 1850	[M]	<p>Note on the formations and Lead mines of Kohel et Terafeh Hekeykian Bey ..... 217</p> <p>An orange yellow earth from Sikkim H Piddington 143</p> <p>Note on Patna Boulders Capt E L Ommauey ... 136</p> <p>Extracts from Voysey's private journal, . 190, 269</p> <p>Wadi Aiar, Note on the strata cut through in excavating for coal in Hekeykian Bey .. . 139</p> <p>Note on the Zinc Mines of Jawar Capt J C Brooke 212</p>
XX 1851.	[M] [M] [M] [M]	<p>Copper Ores of the Deogur Mines H Piddington . 1</p> <p>On a series of Calderite rocks H Piddington . 207</p> <p>Floods in India, for 1849 Dr G Buist ..... 186</p> <p>Behar Mica Mines Capt W S Sherwill . 295</p> <p>Shalk Meteorite H Piddington .. .. 299</p> <p>Rajmahal Hills W S Sherwill .. . 544</p>
XXI 1852.	[M] [M]	<p>On the Argentiferous Ores of Deoghur ..... 74</p> <p>Table of Analysis of Indian Coals H Piddington . 270</p>
XXII 1853	[M]	<p>Laterite, Rangun Capt C B Young ... . 196</p> <p>The Salt Range A Fleming . 229, 333, 444</p> <p>Note on the discharge of water by the Irawady. J. McClelland, . . . . . 480</p> <p>Memorandum on the prospect of remuneration in working the Iron Mines of the Ranigunj District by Major W E Baker, with a report on the same subject by T Oldham 484</p> <p>Note on the Gold fields of upper Asam Maj Hannay . 511</p>
XXIII. 1854.	[M] [M]	<p>Notes on the Iron ore of Korina in the Jetch Dooab of the Punjab Dr A Fleming .. . 92</p> <p>Memorandum on the Geological structure and Mineral resources of the Singbhum Division of the South-West Frontier Agency Capt J C Haughton .. . 103</p> <p>On the Nepaulite, a new Mineral from the neighbourhood of Kathmandu H Piddington .... 170</p> <p>Rajmahal Hills T Oldham .. . 263</p>



Journal Vol XXIII 1854 [M] XXIII [M]	Examination and analysis of Dr Campbell's Specimens of Copper Ores obtained in the neighbourhood of Darjiling H Piddington .. .. . 477 Coal from Darjiling and from Ava H Piddington 381, 714 Notes on the geology of the Punjab Salt range W Theobald .. . . . 651
XXIV 1855 [M] [M] [M] [M] [M] [M]	On the age of coal strata in Western Bengal and Central India Rev S Hislop .... 347 Report on the Kulu iron Mines, and on a portion of the Manikurn Valley. M Marcadien ..... 191 Memorandum on the Kunkurs of Burdwan, as a flux for smelting iron ores H Piddington .. . . . 212 Report on two specimens of Cuttak Coal, from the Talchur mine, forwarded by E A Samuells H Piddington 240 Examination and analysis of a Coal from Cherrapunji. H. Piddington ..... 283 Observations on the Graphite or Plumbago of Kumaon and of Travancore Dr Royle ..... 203
XXV 1856	Notes on the iron ore statistics and Economic Geology of Upper Assam Lieut-Col S F Hannay . . . 330
XXVI 1857	Report on the progress of the Magnetic Survey and of the researches connected with it, from November, 1855 to April 1856 Adolphe and Robert Schlagintweit 97, 208
XXVIII. 1859	Geological specimens from the Persian Gulf, collected by Lieut E G Constable H Carter ..... 41
XXIX 1860	On the rocks of the Damuda group and their associates in Eastern and Central India as illustrated by the re-exami- nation of the Ranigunj field W T Blanford 352 Specimens from the Persian Gulf, &c collected by Capt. E G Constable H. G Carter . . . . . 359

Journal	Memorandum on the Irawadi River, with a monthly register of its rise and fall from 1856 to 1858, and a measurement of its minimum discharge Lieut.-Col A Cunningham .....	175
Vol XXIX 1860	Note upon some remarkable waterspouts seen in Bengal between the years 1852 and 1860 Maj W S Sherwill	366
XXX 1861	Report on the Shalka Puttehpore, Pegu, Assam and Segowhie Meteorites sent from the Asiatic Society of Bengal, to the Imperial Museum of Vienna Dr W Hardinger	129
.	Note on the rainfall in the Basin of the river Mahanady, and the floods consequent thereupon Capt J C Harris	216
.	On the Sub-Himalayan rocks between the Ganges and the Jumna H B Medlicott, . . . . .	22
XXXI 1862	Account of a visit to Pappa-doung, an extinct Volcano in upper Burma W T Blanford . . .	215
XXXII 1863	Account of a visit to the hot springs of Pau, Tavoy district Captain T H Stevenson, . . . . .	383
XXXIII 1864	Enumeration of the hot springs of India and high Asia Robert De Schlagintweit . . . . .	49
	Note on a tank Section at Scaldah, Calcutta H F Blanford, . . . . .	154
	Observations on the geological features &c of the country in the neighbourhood of Bunnoo and the Sanitorium of Shukh Boodun C P Castello . . . . .	378
[M]	The Mines of Khetri in Rajpootana Col J C Brooke	519
XXXIV Pt II 1865	Notes to accompany a geological map and section of the Lowaghur or Sheenghur range in the district of Bunnoo, Punjab with analysis of the lignites Albert M Verchère .....	42

Journal	Note relating to Sivalik Fauna H B Medlicott 63
Vol XXXIV Pt II 1865	Notes on the sandstone formation, &c, near Buxa Fort, Bhutan Duais Capt H H Godwin-Austen, . . . 106
XXXV Pt II 1866	Catalogue of meteoric stones and meteoric irons in the Mu- seum of the Asiatic Society of Bengal, collected up to January, 1866 Dr F Stoliczka and H F Blanford 43 Kashmir, the Western Himalaya and the Afghan Mts Albert M Verchère, with a note on the fossils by M. Edouard Verneuil, Pts. I, II . . . . . 89, 159
XXXVI Pt II	Do Do Pts III, IV, V . . . 83, 201
XXXVII Pt II 1868	Pangong Lake District of Ládak H H Godwin-Austen 84 Geological structure of the country near foot of hills in the Western Bhutan Duais H H Godwin-Austen . . . 117
XXXVIII 1869 [M]	Geology of the Khasi hills H H Godwin-Austen . . . 1 Do of the Jaintia hills Do 151 Analysis of Khetri Meteorite D Waldie . . . . . 252
XXXIX Pt II	Nancowry Harbour, Nicobar Island V Ball . . . . . 25 Port Blair, Andaman Island V Ball . . . . . 231
XLIII Pt II	Record of the Khanpur Meteorite of 23rd Sept, 1873 H B Medlicott . . . . . 33
XLIV Pt II	Dafra Hills, Asam H H Godwin-Austen . . . . . 35 The evidence of past glacial action in the Naga Hills, Asam H H Godwin-Austen . . . . . 209
XLV Pt II 1876	The Physical Geography of the great Indian desert with special reference to the former existence of the sea in the Indus Valley, and on the origin and mode of formation of the Sand-hills W T Blanford . . . . . 86

Journal	On Himalayan glaciation J. F. Campbell ..... 1
Vol. XLVI Pt II 1877	Note on Mr J. F. Campbell's remarks on Himalayan glaciation. H. B. Medlicott ..... 11
	Record of Earthquakes in Asam during 1874-75-76 R. H. Keatinge ..... 294
XLVII Pt II 1878.	Physiographical notes, &c, on Tanjore. R. B. Branfill 179
	Earthquake in the Punjab of March 2nd, 1878. A. B. Wynne ..... 187
	Earthquakes in Asam in 1872 R. H. Keatinge .. 2
XLVIII Pt. II 1879	The country between Kala Abdullah Khan in the Khojak Pass and Lughari Barkhan R. C. Temple .... 103
L. 1881 [M]	Identification of certain Diamond mines in India with a note on the history of the Koh-i-nur. V. Ball 31, 219
	Record of Earthquakes in Assam during 1879 and 1880. 61
Proceedings 1865	On Gopalpur Aerolite Gaurdas Bysak .... 94
1867	On the Kuyahinya Meteorite Dr. Duke ... 21
	On November Meteors W. Masters ... 17, 20
1868	On Meteorites T. Oldham ..... 203, 208
	The action of the Ganges W. Oldham ..... 225, 229
1869. [M]	On the ancient copper mines of Singhbhum V. Ball 170
	Meteorite at Jullunder in April, A. D. 1621 according to the <i>Iqbalnamah-i-Jahangiri</i> H. Blochmann ..... 167
	Notes on the Cachar Earthquake Capt. Godwin-Austen 91
	Account of a Meteor in Cooch Behar, April 30th, 1869 Col. Haughton. ... 169
	On the Jullunder Meteorite Dr. T. Oldham .. 168
	On the Cachar Earthquake. Dr. T. Oldham .. 115

Pro- ceedings 1870 [M]	On the fall of an Aerolite Col G H Saxton .... 64 On a New Mineral from Burma. D Walthe ..... 279
1873.	On stone implements from the Narbada Valley. H B Med- licott .... 138
1875.	Damuda rocks in Asam , H B Medlicott ..... 139
1876	An Ancient Kitchen-midden at Chandwar V Ball . 120 Meteorites from Raipur H B Medlicott ..... 115, 221
1878.	On the Geology of Sind T W Blanford ..... 3
1879	Geological specimens collected by Lieut R. C. Temple H B Medlicott ..... 176
1880. [M]	On some geological specimens from Afghanistan H. B Medlicott ..... 3 Rock salt from Afghanistan. H B Medlicott ..... 123
1881	On the so-called Kharakpur Meteorite. V Ball .... 140  N. B — For Geological notices published in the Proceedings before 1865, <i>vide infra</i> .

As Re

Vol I  
1788

## III.

## ZOOLOGY.

## I—VERTEBRATA

[N B—P—Piscos R = Amphibia and Reptilia F R  
= Fossil Reptilia A = Aves M = Mammalia F  
M = Fossil Mammalia G = General or mixed F G  
= Fossil general or mixed]

[M Pangolin of Behar M Leshe . . . . . 376

II  
1790

Dissection of the Pangolin L A Buist . . . . . 353

IV  
1795 [A]  
[M]

Deer or Indian *Buceros* Lieut C White . . . 119

Leopard or slow-paced *Leopard* Sir W Jones . . . . 135

VI  
1799 [R]

Poison of the Serpents W Brog . . . . . 103

VII  
1801 [M]

A new species of *Delphinus* Dr Roxburgh . . . . . 170

VIII  
1805 [M]

Ox, named Gayal H T Colebrooke . . . . . 487

XII  
1820 [R]

Venomous Serpents, on the coast of Madras Dr Mackenzie . . . . . 329

XIII  
[M]

Tapir found in the Peninsula of Malacca Maj Farquhar  
Communicated by the Honorable A Seton . . . . . 417

XIV  
1822 [M]

On the *Sorex Glis* Messrs Diard and Duvaucel . . . 44

XV  
[M]  
[M]

On the black deer of Bengal Mons A Duvaucel . . . 157

Some account of an orang-outang of Sumatra presented to the  
Asiatic Society by Capt Cornfoot Clark Abel . . . 489

XVIII  
1829 [A]

On a new species of *Buceros* B H Hodgson . . . . 178

As. Res. Pt II 1833.	[A]	<i>Aquila circautis</i> and <i>A. dicrurus</i> B H Hodgson .. 13
	[A]	On the Migration of the <i>Natatores</i> and <i>Grallatores</i> , as observed at Khathmandu B H Hodgson .... 122
	[M]	The wild Goat, and the wild Sheep of Nepal Hodgson 129
	[M]	On the Katwa Deer of Nepal B H Hodgson .... 139
	[A]	<i>Buceos Homiai</i> of the Himalaya B H Hodgson 169
	[M]	The wild Dog of the Himalaya. B H Hodgson ..... 221
XIX. Pt I 1836	[F M]	<i>Sivatherium gigantium</i> , a new fossil Ruminant genus from the Valley of the Markanda Hugh Falconer and Capt. P T Cautley ..... 1
	[F R]	Crocodile of the Sivalik hills Capt P T Cautley .. 25
	[F R]	The Gharial of the Sivalik hills Capt P T Cautley 32
	[F M]	Sivalik Hippopotamus H Falconer, and Capt Cautley 39
	[F M]	Hippopotamus &c in the Dadupui collection Lieut. H M Durand .. . 54
	[M]	A new genus of the Carnivora B H Hodgson .... 60
	[M]	Note of the <i>Eurimorychus griseus</i> J T Pearson ... 69
	[M]	Three new species of <i>Paradoxurus</i> Hodgson ..... 72
	[R]	An undescribed Hooded serpent D <sup>r</sup> Th Cantor . 87
	[F M]	Sivalik Camel Falconer, and Cautley 115
	[F M]	<i>Felis cristata</i> and <i>Ursus Sivalensis</i> Falconer and Cautley 135
	[R]	Ornithology of Nepal B H Hodgson ..... 143
Pt. II	[P]	Indian <i>Cyprinidæ</i> J M Clelland ... ..
Journal Vol I 1832	[M]	<i>Antelope Hodgsonii</i> B H. Hodgson ... .. 59
	[M]	The Jauri B H Hodgson . . . . . 66
	[M]	Catalogue of Mammalia (Dekhan) W H Sykes 161
	[A]	Catalogue of Indian Birds W H Sykes .. . 261
	[M]	On the Mammalia of Nepal B H Hodgson..... 335
II. 1833.	[G]	Catalogue of the Mammalia and Birds belonging to the Museum of the Asiatic Society Dr W Wailow 96
	[G]	On progressive development in the cold-blooded Vertebrata D. W. Nash . . . . . 465
	[A]	Birds of Borabhum and Dholbhum Tickell ..... 569
	[F M]	Fossil bones near Jabalpur J Prinsep ..... 583

- [G] Report on a collection of Natural History The Curator  
of the Museum, Asiatic Society..... 588

- [M] Note on the Chiru Antelope B H Hodgson ... 138  
[F M] Note on the fossil bones of the Narbada Valley discovered  
by Dr G G Spilbury, near Narsingpur J Prinsep 396  
[A] Catalogue of Birds of the Raptorial and Insectorial Orders  
observed in the Dukhun Lieut-Col W H Sykes .. 418  
[V] Bearded Vulture of the Himalaya Lieut Hutton . 522  
[V] Catalogue of Birds of the Insectorial Order in the Dukhun  
Colonel Sykes ..... 536  
[A] Catalogue of the Raptorial, Grallatorial, and Natatorial  
Orders Dukhun W H. Sykes . . . . . 597, 639  
[F M] Fossil Elephant's Tooth from Sonrotee, near Nahun Lieut  
W E Baker ..... 638

- [P] The (so-called) mountain Trout of Kumaon Dr J M'Clelland  
..... 39  
[R] On a new species of Snake discovered in the Doab ... 217  
[M] Fetus of the *Squalus maximus* Dr J T Pearson 324  
[V] Bearded Vulture of the Himalayas B H Hodgson 454  
[A] Red billed Erolia B H Hodgson .. . 458, 701  
[M] Thar and Gharal antelopes B H Hodgson . . . . 487  
[M] On the wild Goat and wild Sheep of Himalaya with remarks  
on the genera, Capra and Ovis B H Hodgson 490, 710  
[F M] Fossil bones of the Jumna river Dean and Prinsep  
495, 500  
[F M] Fossil Elk of the Himalaya Lieut W E Baker . 506  
[F G] Sub-Himalayan Dádupur collection Lieut W E Baker  
565  
[M] A new species of Cervus B H Hodgson . . . . . 649  
[F M] Camel of the Sub-Himalayas Lieut W E Baker 694  
[M] *Vespertilionidae* of Nipal B H Hodgson ... . 699  
[M] Description of a little Musteline animal, denominated  
Kathiah Nyul B H Hodgson 702  
[F G] Sivalik collection Capt P T Cautley and H Falconer  
706



Journal Vol V 1836	[F M]	<i>Sivatherium Giganteum</i> Falconer and Cautley .....	38
	[A]	A new species of <i>Columba</i> B H Hodgson .....	122
	[F G]	Catalogue of a second collection of fossil bones presented to the Asiatic Society's Museum. Col Colvin ..	179
	[A]	Some new species of <i>Falconidae</i> B H Hodgson ...	231
	[G]	Some new animals, enumerated in the catalogue of Nepalese Mammals. B H Hodgson .....	231
	[M]	Note on the <i>Cervus Duvauclii</i> ..	240
	[F M]	Recent Discovery of fossil bones in Perim Island, by Baron Hugel and Mr Geo Fulljames ..	288
	[F G]	Sub-Himalayan Dadupur collection. Baker and DuRand .....	291, 486, 661, 739
	[F M]	Teeth of the Siválik Mastodon Cautley .....	294
	[M]	<i>Canis Tulpes montana</i> , or Hill Fox J T Pearson	313
	[A]	Two new Merceline birds B H Hodgson ...	358
	[A]	On a new genus of the Meropidae. B H Hodgson ..	360
	[A]	On a new Piscatory genus B H Hodgson .....	362
	[F M]	Carnivora from the Sub-Himalayas Lieuts. Baker and DuRand ..	579
	[M]	Postscript to the account of <i>Ursitaxus</i> , printed in the 19th Vol of <i>Researches</i> , Asiatic Society B H Hodgson	671
	[F M]	Mastodons of the Siválks P T Cautley .....	763
	[A]	Ornithology of Nepal B H Hodgson .....	770
<hr/>			
VI 1837	[A]	On three new long-legged Thrushes B H Hodgson	107
	[A]	Three new species of Woodpecker B H Hodgson	104
	[A]	A new Incessorial bird B H Hodgson .....	110
	[F M]	Siválik Quadrumana Falconer Cautley .....	354
	[A]	On some new genera of Raptores with remarks on the old genera B H Hodgson ..	361
	[F M]	Fossils in the Narbada Valley Dr G G Spilsbury	487
	[A]	New species of Indian Snipes B H Hodgson ..	489
	[R]	On the <i>Python Tigris</i> Lieut T Hutton .....	528
	[F R]	A gigantic Batrachian Dr T Cantor .....	538
	[M]	On a new genus of the Plantigrada B H Hodgson	560
		<i>Testudo Geometrica</i> Lieut T Hutton .....	689
	[M]	On the Bibos B H Hodgson .....	745
	[A]	Nest of the Bengal Vulture with observations on the power of scent ascribed to the vulture tribe Lieut Hutton	112
	[M]	Notes on a Musk deer A Campbell, ..	118
	[F M]	Additional fragments of the <i>Sivatherium</i> .....	152

Journal Vol VI 1837	[M]	Specimen <i>Bos Gaurus</i> Dr. George Evans .. .. 223
	[M]	On the Gaur and Gayal J. T. Pearson .... . 225
	[A]	On a new genus of the <i>Sylviadæ</i> with description of three new species B H Hodgson . . . 230
	[F G]	Bones from the Siválík Range east of Hardwai Falconer 233
VII 1838	[A]	Himalayan Vulture Eagle Lieut T Hutton .... . 20
	[F M]	A Siválík Ruminant allied to <i>Giraffidæ</i> Capt Cautley 658
	[M]	A species of <i>Arctonix</i> from Aracan Dr G Evans, ... 732
	[A]	A new Pheasant from Tibet B H Hodgson ..... 863
	[P]	Six new <i>Cyprinidæ</i> , with an outline of a new classification of the family J McClelland ..... 941
	[M]	On the genus <i>Hexaprotodon</i> J McClelland ..... 1038
VIII. 1839	[A]	Distribution of European Birds W Jameson ..... 21
	[A]	New genus of the <i>Fissirostal</i> Tribe B H Hodgson 37
	[M]	Three new species of Musk B H Hodgson .... . 202
	[M]	Four new species of Otter B H Hodgson..... 319
	[A]	On the Geographic Distribution of <i>Falconidæ</i> , <i>Falconidæ</i> and <i>Strigidæ</i> W Jameson .. . . . 321
	[M]	Dissection of the <i>Arctonix Collaris</i> G. Evans ..... 408
	[P]	The ground fish of Bhootan J T Pearson ..... 551
IX Pt I 1840.	[F G]	Various Fossil Sites on the Nerbudda .. . . . 950
	[M]	Wild Sheep of the Hindu Kush Capt Hay . 440
	[G]	Catalogue of the Museum of the Asiatic Society Pearson 514
	[F M]	On <i>Bos Gaurus</i> Dr Spilshury . . . . . 551
Pt. II	[M]	<i>Camelidæ</i> of the Siválíks. Capt Cautley 620
	[M]	Common Hare of the Gangetic Provinces and of the Sub- Himalaya, with a notice of a Himalayan species B H Hodgson ..... 1183
	[M]	Three new species of Monkey, with remarks on the genera, <i>Semnopithecus</i> and <i>Macacus</i> Hodgson ... 1211
X 1841.	[M]	Two wild species of Sheep inhabiting the Himalayan region, with remarks on the craniological character of <i>Ovis</i> and its allies Hodgson .... . 230
	[F M]	Discoveries in the Narbadá valley Spilshury . . . 626

Journal Vol X. 1841	[G]	Birds and Mammals in the Society's Museum ... 628, 660
	[M]	The species of true stag E Blyth ..... 736
	[M]	<i>Cervus elaphus</i> (?) Marmots, &c Hodgson 721, 777, 795
	[M]	<i>Lagomys Nepalensis</i> B H Hodgson..... 854
	[A]	<i>Conostoma Æmodius Glancopinæ</i> B H Hodgson 856
	[M]	The Species of wild Sheep E Blyth..... 858
	[M]	Catalogue of Nepal Mammals Hodgson ..... 907
	[M]	Three species of Tapozous E Blyth ..... 971
XI 1842	[A]	Indian and Malayan birds, with descriptions of some new species E Blyth ..... 160
	[M]	Predatory and sanguivorous habits of <i>Magaderma</i> , with remarks on the blood-sucking propensities of other <i>Tesperiionidae</i> E Blyth.. .... 255
	[M]	Mammals of Tibet B H Hodgson . .... 275
	[M]	A Monograph of the species of <i>Lynx</i> E Blyth .... 740
	[M]	<i>Tuphozous longimanus</i> (Hardwicke) E Blyth ..... 784
	[A]	Malayan species of <i>Cuculidæ</i> E Blyth ..... 897, 1095
XII. 1843	[A]	A new genus of <i>Falconidæ</i> Hodgson ..... 127
	[A]	Indian and Malayan Species of <i>Cuculidæ</i> E Blyth (240)
	[A]	Catalogue of Nepalese birds, presented to the Asiatic Society, named and classified by the Donor, M <sup>r</sup> Hodgson 301, 447
	[M]	Two Marmots, and a <i>Rhinolophus</i> Hodgson .. . 409
	[F M]	Antelope in the Dadupur Museum Capt Baker ..., 76.
	[M]	On a Tiger killed near Darjiling Lieut Tickel..... 81
	[M]	<i>Cervus dimorphe</i> Hodgson .. . . . 89
XIII 1844	[M]	Two new flying Squirrels. B H Hodgson, . . . 61
	[M]	Descriptions of many new species E Blyth . ... 46.
	[FG]	Osseous Breecia and deposit in the caves of Billa soargum, Lat 15° 25' Long 78° 15' Southern India Capt Newbold .. . . . 61
	[F M]	Notes on Narbada fossils Dr G G Spilsbury ..... 76
	[M]	The osteology of the Elephant ..... 91.
	[A]	"On the Leiotrichane birds of the Sub-Himalayas" B. H Hodgson, with some additions and annotations and synopsis of the Indian Pari, and of the Indian <i>Tringillidæ</i> E Blyth . . . . . 93

Journ [A] Vol [M] XIV.	<p>Various new or little known birds Blyth . . . . 173, 546</p> <p>Caprologus, a new genus of Leporine Mammalia. Blyth . . . . . 247</p> <p>Zoology of Candahar, and the neighbouring district Capt Hutton, with note by Ed Blyth . . . . . 340</p> <p>Drafts for a <i>Fauna Indica</i>, comprising the animals of the Himalaya mountains, those of the Valley of the Indus, of the provinces of Asam, Sylhet, Tipperah, Arracan, and of Ceylon Ed Blyth . . . . . 845</p>
XV. [G] [M] [A] [M] [M]	<p>Notes on the fauna of the Nicobar islands E Blyth 367</p> <p>Malayan Fauna Theodore Cantor . . . . . 71, 241</p> <p>Various new birds E Blyth . . . . . 1, 280</p> <p>A new Tibetan antelope B H Hodgson . . . . . 334</p> <p>Rough Notes on Zoology of Candahar and the Neighbouring districts Capt Hutton, with notes by Blyth . . . . . 135</p>
XVI [M] [M] [A] [M] [M] [M] [M] [M] [A] [R] [A] [M] [M] [M]	<p>On a new form of <i>Suidæ</i> Hodgson . . . . . 423, 593</p> <p>On the Hispid Hare of the saul forest. B H Hodgson . . . . . 572</p> <p>New or little known birds Blyth . . . . . 117, 428</p> <p><i>Ovis Ammonoides</i> of Hodgson T Hutton .. 568</p> <p>The species of wild Sheep E Byth . . . . . 350</p> <p>On the Charj or <i>Ovis bengalensis</i>. B H Hodgson 883</p> <p>On a new species of Porcupine B H Hodgson . . . . . 771</p> <p>On a new species of <i>Plecotus</i> B H Hodgson . . . . . 894</p> <p>Candahar Fauna. Capt. Thomas Hutton . . . . . 775</p> <p>Malayan Fauna T Cantor . . . . . 607, 897, 102</p> <p><i>Magaderma schistacea</i> B. H Hodgson . . . . . 889</p> <p>Tibetan Badger, <i>Taxidia Cucurus</i> Hodgson . . . . . 763</p> <p>On the tame Sheep and Goats of the Sub-Himalayas and of Tibet B H Hodgson . . . . . 1003</p> <p>Various Genera of Ruminants B H Hodgson 685</p>
XVII [A] Pt I	<p>Oology of India —A description of the Eggs, also Nests, of several birds of the Plains of India Capt. S R. Tickell . . . . . 297</p>
XVII [M] Pt II. [A]	<p>Ailurus, Porcula, and Stylocerus Hodgson 475</p> <p>The Nidification of Indian Birds Hutton . . . . . 3, 681</p>

Journ [M]	The Scuri from Ceylon and Tenasserim	E Blyth	600
Vol [M]	The Polecat of Tibet	B H Hodgson	446
XVIII [A]	A supplemental note to the Catalogue of Birds in the Asiatic Society's Museum.	E Blyth	800
[P]	Catalogue of Malayan fishes.	Dr T Cantor	983
XIX. [M]	Description of a new Species of Mole	E Blyth	212
[A]	Ornithology of India	E Blyth	229, 319, 501
[M]	On the shou or Tibetan stag	B H Hodgson	466, 518
[M]	<i>Budorcas taxicolor</i>	B H Hodgson	65
[A]	Variation of nearly affined species or races of birds, chiefly of India	E Blyth	229
XX. [G]	Report on the Mammalia, and more remarkable species of Birds inhabiting Ceylon	E Blyth	153
[G]	Notice of a collection of Mammalia, Birds, and Reptiles from Cherra Punji.	E Blyth	517
[M]	<i>Cervus affinis</i>	B. H Hodgson	388
XXII [M]	Remarks on Orangutan	E Blyth	369
[R]	Catalogue of Indian Reptiles	T C Jerdon	462, 522
[R]	Various reptiles, new or little known	Blyth	639
XXIII [A]	A Monograph of the Indian species of <i>Phylloscopus</i> and its immediate Affines	E Blyth	479
[R]	Various reptiles, new or little known.	Blyth	287
[A]	Nidification of birds of the Salt range &c	Theobald	591
XXIV [M]	A Memoir on the Indian species of Shrews	E Blyth	24
[G]	Zoological collection from the Somali country	Blyth	291
[M]	The different species of Orangutan	Blyth	518
[A]	Catalogue of Nepalese Birds	B H Hodgson	572
[A]	On Indian Oology.	W Theobald	520
[A]	A new species of Hornbill	Capt Tickell	285
XXV [A]	On a new Bird from Tibet.	B H Hodgson	165

Journ ' [A]	A new Indian Pigeon, akin to the 'Stock-Dove' of Europe, with notices of other <i>Columbinæ</i>	Blyth	217
Vol XXVI [M]	On a new Lagomys, and a new Mustela	Hodgson	207
XXVII [M]	A new species of Mole, <i>Talpa Macrura</i>	B H. Hodgson	176
XXVIII [M]	The different animals known as wild Asses	Blyth	229
[M]	On the great Rorqual of the Indian Ocean	E Blyth	481
XXIX [M]	Note on the races of Rein Deer	E Blyth	376
[G]	On the flat-horned Taurine Cattle of S E Asia, with a note on the races of Rein Deer, and a note on domestic animals in general	E Blyth	282
[P]	Fishes from the Sitang river, and its tributary streams, Tenasserim Provinces	Blyth	138
[P]	The cartilaginous fishes of lower Bengal	E Blyth	35
[M]	Memorandum on Mr Blyth's paper on the animals known as wild Asses	Major R Strachey	136
[A]	Ornithology of Amoy	Robert Swinhoe	210
XXXI [M]	The living Asiatic species of Rhinoceros	Blyth	151
[M]	Wild Asses and alleged wild Horses	Blyth	363
[R]	A little described species of Turtle	Tickell	367
[M]	A Memoir on the Rats and Mice of India	E Blyth	327
[M]	Description of a new species of <i>Paradoxurus</i> from the Andaman islands	Lieut-Col R C Tytler	188
[M]	Gibbon of Tenasserim	S R Tickell	196
XXXIII [A]	Notes on the <i>Didunculus strigirostris</i> of the Navigator islands, Sir W Denison		313
[R]	Observations on a few species of Geckos alive in the possession of the Author	Lieut-Col R C Tytler	335
XXXIV Pt. II. [A]	Description of a supposed new genus of the Gophers, Arabian	Lieut-Col S R Tickell	32
[M]	Note on <i>Ligotys Curzonæ</i>	F Stebley	105

Journal	Contributions towards a history of <i>Panolia Eldi</i> R. C Beavan..... 175
Vol XXXVI Pt II.	
XXXVII Pt II. [A]	Ornithology of the Sutlej Valley F. Stoliczka ..... 1
[A]	Birds of the Goona district. G King .. ..... 208
[R]	Catalogue of Reptiles in the Museum of the As Soc of Bengal W. Theobald ... ..... Extra number
[A]	Ornithological notes chiefly on some birds of Central, Western, and Southern India. W T Blanford ... 164
[R]	Descriptions of two new species belonging to the genera <i>Varanus (Psammosaurus)</i> and <i>Feranioides</i> , respectively H C L Cailleye .. ... 192
XXXIX Pt. II. [P]	On the genus <i>Hara</i> . F Day ..... 37
[R]	Indian and Malayan <i>Amphibia</i> and Reptilia F Stoliczka 134, 157
[A]	Observations regarding some species of Birds noticed by W. T Blanford in his "Ornithological notes" A O. Hume ..... 113
[A]	Birds obtained in the north Cachar Hill range H H. Godwin-Austen ..... 264
[A]	Contributions to Malayan Ornithology F. Stoliczka 279
[A]	Birds from Port Blau V Ball ..... 240
XL Pt II	
[R]	Accessions to the Indian Museum from 1865 to 1870 with a description of some new species T Anderson 12
[A]	On Mc. Master's list of Nagpore Birds W. T Blanford 216
[A]	List of Birds collected or observed in the Wardha valley and its vicinity near Chanda W T Blanford 268
[G]	Zoology of the Alpine and Subalpine regions on the Eas- tern and Northern frontiers of Independent Sikkim, part I W T Blanford ..... 367
[P]	Monograph of the Indian <i>Cyprinidæ</i> F. Day, Pts I, II, III ..... 95, 277, 337
[M]	A new species of <i>Vespertilio</i> G E Dobson ..... 186
[M]	New species of <i>Cheuoptera</i> G E Dobson ..... 260, 455
[A]	Notes on Birds observed in the neighbourhood of Nagpore and Kámpti, Chikaldá and Akola A C McMaster 207
[R]	Indian and Burmese <i>Ophidians</i> F. Stoliczka ..... 217

Journ	[A]	Notes on Birds collected in the Andaman islands by G. E. Dobson V. Ball .....	273
Vol			
XL	[V]	Notes on a Sikkim collection W. T. Blanford .....	152
Pt. II	[V]	Notes on the Ornithology of Kashmir. W. E. Brooks	73
	[A]	Two undescribed Kashmir Birds W. E. Brooks ..	327
	[P]	Monograph on Indian <i>Cyprinidæ</i> F. Day 1, 171,	318
	[P]	Dr. Stoliczka's Kachh collection F. Day .....	258
	[M]	Osteology of <i>Trianops Persicum</i> G. E. Dobson	369
	[M]	Osteology of some new species of Bats G. E. Dobson	334
	[M]	New species of <i>Rhinolophine</i> Bats G. E. Dobson. .	336*
	[V]	Birds, Kāsi Hills Godwin-Austen .....	142
<hr/>			
XLI	[R]	New or little known Indian Lizards F. Stoliczka	86, 77
Pt. II	[G]	Mammals and Birds inhabiting Kachh. F. Stoliczka	21
<hr/>			
XLII	[R]	On the genus <i>Gymnops</i> ( <i>Lacertidæ</i> ) W. T. Blanford	144
Pt. II.	[A]	On an undescribed <i>Lophodinus</i> W. E. Brooks	57
	[A]	<i>Aquila bifasciata</i> and <i>A. orientalis</i> . W. E. Brooks	145
	[A]	On the <i>Cathartæ</i> of India W. E. Brooks ....	255
	[M]	<i>Pteropidæ</i> of India and its islands Dobson .....	195
	[M]	A new <i>Tespertilio</i> from N. W. Himalaya Dobson	205
	[R]	Malayan Amphibia and Reptilia F. Stoliczka .....	111
	[R]	Andamanese and Nicobarese reptiles. Stoliczka . .	162
<hr/>			
XLIII	[A]	Ornithological notes and corrections W. E. Brooks..	239
Pt. II.	[P]	Remarks on some Indian Fishes F. Day .....	31
	[M]	Asiatic species of <i>Molossæ</i> G. E. Dobson ....	142
	[M]	List of <i>Chiroptera</i> inhabiting the Khasi hills with description of a new species G. E. Dobson .....	234
	[M]	Description of new species of <i>Chiroptera</i> from India and Yunnan G. E. Dobson .....	237
	[A]	Birds principally from the Naga Hills and Manipur H. Godwin-Austen .....	151
	[A]	Occurrence of supraorbital chain of bones in the <i>Arboricolæ</i> (Wood Partridges) J. Wood-Mason .....	254
<hr/>			
XLIV	[M]	On the Scientific evidence of the Sind "Ibex," the Markhor, and the Indian Antelope W. T. Blanford .....	12
Pt. II			



Journ [M]	List of Mammalia collected by the late Dr Stoliczka, when attached to the embassy under Sir. D Forsyth in Kash- mir, Ládak, Eastern Turkestan, and Wakhán, with de- scription of new species. W T. Blanford . . . . . 105
Vol	
XLIV	
Pt. II	
[M]	On the species of Marmot inhabiting the Himalaya, Tibet, and the adjoining Regions W T Blanford . . . . 114
[R]	List of <i>Reptilia</i> and <i>Amphibia</i> collected by the late Dr Stoliczka in Kashmir, Ládak, &c. W. T Blanford .. 191
[R]	<i>Elachistodon Westermanni</i> &c W. T Blanford . . . . 207
[M]	Note on a large hare inhabiting high elevations in Western Tibet W. T Blanford . . . . . 214
[M]	Note on the occurrence of a partially ossified Nasal Septum in <i>Rhinoceros Sondaicus</i> . O L Fraser . . . . . 10
[G]	Catalogue of the Mammals and Birds of Burma. E. Blyth (Extra Number)
<hr/>	
XLV. [R]	On some Lizards from Sind with descriptions of some new species W T Blanford . . . . . 18
Pt II	
[M]	Description of <i>Felis Shawiana</i> W. T Blanford . . . 49
[M]	<i>Golunda Elliotsi</i> from Sind W. T Blanford . . . . . 165
[A]	List of the Birds from Daffa Hills, Asam, and from Darrang Terai H H Godwin-Austen . . . . . 64
[A]	Birds from the hill ranges on the N E Frontier of India. H H Godwin-Austen . . . . . 191
<hr/>	
XLVI [M]	Description of some new and little known Asiatic Shrews in the Indian Museum. J Anderson . . . . . 261
Pt II	
[M]	Weasel from Yarkand W T Blanford . . . . . 259
[M]	On the Metád Rat ( <i>Golunda Meltada</i> , Gray) with a note on <i>Golunda Elliotsi</i> W T Blanford . . . . . 288
[M]	Notes on two species of Asiatic Bears, and on an apparently undescribed Fox from Beluchistán W T Blanford 315
[M]	On an apparently New Hare, and some other Mammals from Gilgit W T Blanford . . . . . 323
[M]	Notes on a collection of <i>Chiroptera</i> from India and Burma, with descriptions of new species G E Dobson 310
[A]	Three new species from Saddya. Godwin-Austen.... 41
[M]	Sheep from the Central Hill of Kelat A O Hume. . 327
[M]	Notes on the Mammalian Fauna of the Wardwan and Upper Chenab Valley. R Lydekker . . . . . 283



Journ [M]	On an abnormality in the horns of the Hog-deer, <i>Axis porcinus</i> , with an amplification of the theory of the evolution of antlers in Ruminants J Cockburn .....	45
Vol LI		
Pt II [R]	On the habits of a little known Lizard, <i>Brachysaura ornata</i> J Cockburn .....	50
Proc 1865 [M]	On supposed new species of rats R C Tytler .	76
1866 [M]	On <i>Nesokia Indica</i> W Theobald ...	239
[A]	On <i>Vultur monachus</i> R C Tytler ....	74
1868 [M]	Remarks on elephants V. Ball .....	129
[M]	On the Lion of Abu Dr G King .	178, 198
[G]	On rare Malayan animals A C Maingay	127, 177, 194
1870. [A]	New species of Birds T C. Jerdon .....	59
1871 [R]	On a new <i>Scincus</i> . J Anderson ...	115
[R]	On a new <i>Mabonia</i> , and on two genera of <i>Eurylepis</i> and <i>Plocoderma</i> J Anderson .....	180
[R]	Notes on <i>Hemidactylus Marmoratus</i> and <i>Ablabes Humberti</i> . W. T. Blanford .....	173
[A]	On new <i>Abroinis</i> E. Brooks .....	248
[A]	On a new Flamingo. E Brooks .....	284
[M]	On a new <i>Kenoula</i> . G E Dobson .....	77
[M]	On Malayan Bats G E Dobson .	105
[M]	On Persian Bats G E Dobson ....	133
1872 [A]	On a new Indian <i>Sylvia</i> W E Brooks .....	66
[A]	On the imperial Eagles of India W E Brooks ..	37, 64
[A]	On a new <i>Reguloides</i> W. E Brooks .	143
[A]	On a new <i>Phyllopneuste</i> . W E Brooks .....	4
[A]	On the Swans of India W. E Brooks .....	4, 63
[M]	On <i>Tuphous</i> G. E Dobson .....	151
1873 [A]	Notes on Eagles W E Brooks .....	173
[R]	On a double-headed snake G. E Dobson .....	23

Proc [M] 1873	On the genera <i>Murina</i> and <i>Harpiocephalus</i> of Gray G E Dobson . . . . . 107
[R]	On Type specimens of <i>Batrachia</i> W Theobald . . 110
1874 [M]	On occurrence of <i>Tupaia Elliotti</i> , Waterhouse, in the Sat- pura Hills . . . . . 95
[V]	Ornithological Notes and Corrections W E Brooks 229
[A]	Birds, new species of A O Hume . . . . . 106
[G]	Note on two undescribed species of Goat, and a new Dove A O Hume . . . . . 240
[R]	On Indian and Burmese <i>Trionyx</i> W Theobald . 59, 75
1875 [A]	On an apparently unnamed species of <i>Phænicopterus</i> W E Brooks . . . . . 17, 48
[M]	<i>Ailurus fulgens</i> L Schwendler . . . . . 93
[V]	A four-horned Sheep, from Sind L Schwendler . . 186
[M]	On photographs of <i>Rhinoceros Sondaicus</i> and <i>R Indicus</i> J Wood-Mason . . . . . 230
[R]	On the young of certain species of <i>Trionyx</i> and on the colours of extinct animals J Wood-Mason . . . 179
1876 [M]	<i>Pelomys Watsoni</i> , a from Sind W T Blanford 181
[V]	Remarks on the habits of wild Pigs W T Blanford 92
[F M]	Jaw of <i>Tetraconodon magnum</i> R Lydekker . . . 172
1877, [M]	A Bamboo-rat J Anderson . . . . . 148
[M]	Notes on certain Mammals occurring in the Basin of the Mahānadi V Ball . . . . . 168
[M]	Notes on some recent researches on the origin of the do- mestic Dog W T Blanford . . . . . 114
1878 [F M]	On the palate of the anthropoid Ape from the Sivális R Lydekker . . . . . 191
[M]	On the absence of a horn in the female of the Sundarban Rhinoceros H J Runey . . . . . 139
1879. [M]	On the Mamb, or Beluchistan Bear W T Blanford 4
[M]	<i>Ovis Pali</i> J Wood-Mason . . . . . 280

Proc [M]	Zoological Notes L Schwendler .. . . . . .	55
1880 [M]	Rat from the Safed Koh Ranges J Wood-Mason .	173
1881. [M]	On the occurrence of the Lion in Palamow. V Ball	3
1882. [M]	On polydactylism in a Horse J Cockburn .. . . .	115
[G]	Habits and instincts of some animals J. Cockburn	106

*N B*—For notices of the Vertebrata published in the  
“Proceedings” before 1865, see below.

2.—INVERTEBRATA.		
As Res Vol XIV	[N B—C = Cœlenterata A = Arthropoda M = Mollusca F M = Fossil Mollusca]	
[C]	Description of a Zoophyte commonly found about the Coasts of Singapore island T Hardwicke ....	180
XVIII Pt I [F M]	On the Petrified shells found in the Gawilgar range of hills, in April 1823. H W Voysey .....	187
Pt II 1833 [F M]	Memorandum on the fossil shells discovered in the Himala- yan mountains Rev R Everest.....	107
Journ [M] Vol I	Account of a new genus of Land snails, allied to the genus <i>Cyclostoma</i> W. H Benson .....	11
1832 [M]	On the habits of the <i>Paludinæ</i> T Hunter .....	411
II [M]	Note on the <i>Spiraculum</i> J T Pearson . . . . .	590
1833 [M]	Shells from Sâgar. H H Spry .....	639
III [M] 1834.	On the land and fresh water Shells of India T Hutton	81, 520

Journ [V]	Account of <i>Oxygyrus</i> , a new genus of Pelagian Shells with a note on some other Pelagian shells W H Benson 173
Vol IV [M]	Characters of three new species of Indian fresh-water Bivalves Isaac Lea, with notes by W H Benson 450
[M]	Dr M'Clelland on the fossil shells of Chirrapunji . . 520
[V]	Character of the genus <i>Cuvieria</i> W Benson . . . . 698
<hr/>	
V [M]	Terrestrial and Fluvial <i>Testacea</i> , chiefly from the North-East Frontier of Bengal W H Benson . 350, 741
[M]	<i>Nematura</i> , a new genus of Mollusca W H Benson 781
[M]	Note on the genus <i>Pterocyclos</i> (Benson) and <i>Spiraculun</i> (Pearson) Dr William Bland . . . . . 783
<hr/>	
VI [M]	On <i>Balantium</i> , a genus of <i>Pteropodous Mollusca</i> , with the characters of a new species inhabiting the Southern Indian Ocean W H Benson . . . . . 150
[M]	On <i>Oxygyrus</i> and <i>Bellerophon</i> W H Benson . . . . . 316
<hr/>	
VI [M]	On the land and fresh water shells of the western Himalaya T Hutton and W H Benson . . . . . 211
[M]	Note on the affinities of <i>Galathea</i> of Lamarck W H Benson . . . . . 420
[A]	Note on the New Zealand Caterpillar G Evans . . 187
<hr/>	
VIII [FM]	On fifteen varieties of fossil shells found in the Saugor and Narbadá territories George G Spilsbury . . . . 108
<hr/>	
IX [FM]	Fossil shells discovered by Captain Hay, in the neighbourhood of Rajgur, Afghanistan . . . . . 1126
<hr/>	
XII [A]	On Genus <i>Paussus</i> . W J E Boyes . . . . . 421
<hr/>	
XVI [M]	On <i>Teredo Navalis</i> , L' Cantoi . . . . . 487

Journal Vol XVII [A]	The land shells of the Tenasserim provinces Rev F. Mason .. 62 <i>Coleoptera</i> of Hongkong Capt. Champion ..... 572
XVIII. [M]	Notices of some land and fresh water shells occurring in Afghanistan Capt T Hutton ..... 649
XIX [A]	Note on the bird-devouring habits of a species of Spider Captain Sherwill ..... 474
XXIV [M]	On the Chusun Shells, collected by Dr T Cantor W H Benson ..... 119
XXV [A]	New Ceylon <i>Coleoptera</i> John Neitner..... 381, 523
XXVI [M]	Notes on the distributions of some of the land and fresh-water shells of India, Part I W Theobald ..... 245
XXVII [M]	Notes on the distribution of some of the land and fresh-water shells of India, Part II W Theobald..... 313
XXVIII. [M]	New Burmese and Indian <i>Helicidae</i> with remarks on some previously described species W Theobald ..... 305
XXIX [M]	Contributions to Indian Malacology, No I W. T and H F Blanford ..... 117
XXX [M]	Contributions to Indian Malacology, No II H. F and W. T Blanford ..... 347
XXXI [M]	Contributions to Indian Malacology, No III. Descriptions of new operculated land-shells from Pegu W T Blanford ..... 135

Journ	On Dr Gerard's collection of fossils from the Spiti Valley, in the Asiatic Society's Museum H F Blanford 124
Vol [F M]	Contributions to Indian Malacology, No IV Descriptions of new land shells from Ava, and other parts of Burma
XXXII.	William T Blanford . . . . . 319
1863	[M] Notes on the distribution of Indian terrestrial <i>Gasteropoda</i> considered with reference to its bearing on the origin of species W Theobald . . . . . 354
[F M]	Note on the fossils in the Society's Collection reputed to be from Spiti T Oldham . . . . . 232
XXXIII	[M] Notes on the variation of some Indian and Burmese <i>Helicidae</i> with an attempt at their re-arrangement, together with descriptions of New Burmese <i>Gasteropoda</i> W. Theobald . . . . . 238
1864	
XXXIV.	Observations on certain strictures by W T Blanford on W Theobald's paper on the distribution of Indian <i>Gasteropoda</i> in J A S W Theobald . . . . . 60
Pt II [W]	Contributions to Indian Malacology, No V Descriptions of new land shells from Arakan, Pegu, and Ava, with a note on the distribution of described species W T Blanford . . . . . 66
1865	[M] Notes on a collection of land and fresh-water shells from the Shan States collected by F Fedden, 1864-65 W. Theobald . . . . . 273
XXXV	Contributions to Indian Malacology, No VI Descriptions of new land shells from the Nilgiri and Anamullay hills, and other places in the Peninsula of India W T. Blanford . . . . . 31
Pt II [M]	[M] Contributions of Indian Malacology, No VII List of species of <i>Unio</i> and <i>Anodonta</i> described as occurring in India, Ceylon, and Burma W T Blanford . . . . . 134
1866	
XXXVI	Contributions to Indian Malacology, No VIII List of Estuary shells collected in the delta of the Irawadi in Pegu with descriptions of the new species W T Blanford . . . . . 51
Pt II [M]	On the intimate structure of muscular fibre M D Macnamara . . . . . 71
1867.	



Journ [M]	Contributions to Indian Malacology, No. IX Descriptions of New <i>Diplomatinae</i> from Darjiling and the Kasia hills. W T Blanford . . . . . 77
Vol XXXVII	Figures of the species of <i>Diplomatinae</i> (Benson) inhabiting the Himalayas Kasia hills, &c Godwin-Austen . . 83
Pt II [M]	
[C & M]	Anatomy of <i>Sagartia Schilleriana</i> and <i>Membranipora Bengalensis</i> , a new Coral and a Bryazoon living at Port Canning F Stoliczka . . . . . 28
XXXVIII	
Pt II	
[M]	On some new Marine <i>Gastropoda</i> from the Southern Provinces of Ceylon. G & H Nevill . . . . . 65, 157
[M]	Contributions to Indian Malacology, No X. W T Blanford . . . . . 112
[M]	The Malacology of Lower Bengal—on <i>Onchidium</i> , F. Stoliczka . . . . . 86
[A]	Indian <i>Arachnoidea</i> Dr Stoliczka . . . . . 201
[M]	New species of <i>Diplomatinae</i> from the Kasia hills Col H Godwin-Austen . . . . . 1
XXXIX [M]	Contributions to Indian Malacology, No XI W T Blanford . . . . . 9
Pt II	
1870 [M]	On the Land Shells of Bourbon G Nevill . . . . . 403
[M]	New species of Land Shells from the Shan States of Pegu W. Theobald. . . . . 395
XL [M]	Species of <i>Camptoceras</i> and other land Shells H Blanford . . . . . 39
Pt II	
1871 [M]	The <i>Alycæmæ</i> of the Kasia hills Godwin-Austen . . . . . 87
[M]	Mollusca from the Eastern regions G & H Nevill . . . . . 1
[M]	Notes on Terrestrial Mollusca from the neighbourhood of Mouhmein F Stoliczka . . . . . 143, 217
[A]	Contributions to Indian Carcinology J Wood-Mason 189, 201, 449
XLI [M]	Account of a visit to the Eastern and North-Eastern Frontiers of Independent Sikkim, &c, Part II W T Blanford . . . . . 30
Pt II	
1872	
[M]	Monograph of Himalayan, Asamese, Burmese, and Cingalese, <i>Clausiliae</i> W T. Blanford . . . . . 199

Journ* [M]	Postscript to above F Stoliczka .....	207
Vol	Land Shells of Penang Island, Part I, <i>Cyclostomaceæ</i> F	
XLI [M]	Stoliczka .....	261
Pt II	Burmese and Arakanese Land Shells Theobald and	
1872	Stoliczka .....	329
XLII [M]	On the Landshells of Penang Islands with descriptions of	
Pt II.	the Animals and Anatomical notes, Part II, ( <i>Helicidæ</i> )	
1873	F Stoliczka .....	11
[A]	Indian species of <i>Thelyphonus</i> F Stoliczka .....	126
[A]	Contributions towards a Monograph of the Indian <i>Passallidæ</i>	
	F Stoliczka .....	149
[A]	Two new species of Indian Landshells Stoliczka ....	169
• [M]	Two new species of <i>Unionidæ</i> W Theobald .....	207
[A]	On <i>Nephropsis Stewarti</i> J Wood-Mason ... ..	39
[A]	New or little known species of <i>Phasmidæ</i> , Part I, genus	
	<i>Racillus</i> J Wood-Mason .....	45
[A]	On <i>Rhopalorhynchus Kröyeri</i> , a new genus and species of	
	<i>Pycnogonidæ</i> J Wood-Mason . . . .	171
[A]	On a new genus and species of Land Crabs from the Nicobar	
•	Islands J Wood-Mason . . . .:	258
XLIII		
Pt II [M]	Description of nine species of <i>Alycinæ</i> from Assam and	
1874	the Naga hills H H Godwin-Austen . . . .	145
[M]	Descriptions of New Marine Mollusca from the Indian	
•	Ocean G & H Nevill ... ..	21
XLIV [M]	<i>Celostele</i> , (Benson) and <i>Francesia</i> (Paladilhe), and some	
Pt II	species of Land shells from Aden. W T Blanford . .	41
[M]	<i>Helix</i> and <i>Glossula</i> from the Khasi hills and Manipur.	
	H H Godwin-Austen . . . . .	1
	<i>Zonitidæ</i> , from the N E frontier of Bengal H H	
	Godwin-Austen . . . . .	4
[M]	Descriptions of some operculated Land shells from the Naga	
	Hills and Assam H H Godwin-Austen . . . .	7
[M]	Marine Mollusca from the Indian Ocean G and H Nevill	

Journ [M]	On new or little known species of <i>Phasmidæ</i> J Wood-	
Vol XLV	Mason . . . . .	215
Pt II [M]	On the <i>Cyclostomaceæ</i> and <i>Helicidæ</i> of the Daffa Hills,	
	Asam H H Godwin-Austen . . . . .	171, 311
[M]	New Land and Fresh water Shells from India and Burma	
	W Theobald . . . . .	183
[A]	A new species of <i>Phasmidæ</i> J Wood-Mason . .	47
[A]	A new species of <i>Cetomidæ</i> J Wood-Mason ....	52
[A]	A new species of <i>Blattidæ</i> J Wood-Mason .....	189
XLVI [M]	Description of <i>Spuraculum Mastersi</i> W. T Blanford	313
Pt II [M]	Mollusca brought by Dr J Anderson from Yunnan and Upper	
	Burma, with descriptions of new species G Nevill	14
[A]	Notes on <i>Phasmidæ</i> J Wood-Mason .....	342
XLVII [A]	Preliminary Diagnoses of new Coleopterous Insects belong-	
Pt II	ing to the families <i>Dytiscidæ</i> , <i>Staphylinidæ</i> , and <i>Scura-</i>	
	<i>bæidæ</i> D Sharp . . . . .	169
[M]	Notes on the Land and Freshwater Shells of Kashmir, more	
	particularly of the Jhulum Valley below Srinagar and	
	the hills north of Jammu W Theobald ....	141
[A]	On some <i>Hymenoptera</i> J Wood Mason .....	167
[A]	A New Lepidopterous insect J Wood-Mason .....	175
[A]	A new Homopterous insect J Wood-Mason ...	194
XLVIII [C]	Hydroid Zoophytes from the Indian Coasts and Seas J	
Pt II	Armstrong, . . . . .	98
[A]	<i>Hemiptera</i> from U Tenasserim W L Distant, ...	37
[M]	On new species of the genus <i>Plectopylis</i> of the family	
	<i>Helicidæ</i> H H Godwin-Austen, . . . . .	1
[A]	Preliminary notice of a new genus of <i>Phasmidæ</i> from	
	Madagascar with brief descriptions of its two species	
	J Wood-Mason, .....	117
XLIX [A]	The species of <i>Chæradodis</i> , a genus of <i>Mantodea</i> common	
Pt II	to India and Tropical America J Wood-Mason, 82	
[A]	A new species of Diurnal <i>Lepidoptera</i> belonging to the	
	genus <i>Hebomoia</i> J Wood-Mason .....	131

Journ	[A]	On a new species of <i>Papilio</i> from South India, with remarks on the species allied thereto J Wood-Mason, ..	144
Vol			
XLIX	[A]	The Female of <i>Hebomoia Rapstorffii</i> J Wood-Mason	150
Pt II	[M]	Notes on, and drawings of, the Animals of various Indian land Mollusca ( <i>Pulmonifera</i> ) H H Godwin-Austen	151
	[M]	New species of Brackish-water mollusks G Nevill	159
	[A]	On the <i>Lepidopterous</i> genus <i>Amona</i> , with description of a new species J Wood-Mason .....	175
	[A]	A new <i>Papilio</i> from the Andamans J Wood-Mason	178
	[M]	Contributions to Indian Malacology, No XII Descriptions of new Land and Freshwater shells from Southern and Western India, Burma, the Andaman islands W F Blanford ..	181
	[A]	Some new species of Rhopalocerous <i>Lepidoptera</i> from the Indian region Capt. G F L Marshall and L de Nicéville ..	245
	[A]	List of Diurnal <i>Lepidoptera</i> from Port Blair, with descriptions of some new or little known species, and of a new species of <i>Hestia</i> from Burma J Wood-Mason and L de Nicéville .	223
	[A]	Description of <i>Parantirrhæa Marshalli</i> , the type of a new genus and species of Rhopalocerous <i>Lepidoptera</i> from South India J Wood-Mason .....	248
L	[M]	<i>Mollusca</i> of the Indo-Malayan Fauna G Nevill	125
Pt II	[M]	A new species of <i>Rostellaria</i> from the Bay of Bengal G Nevill ..	262
	[A]	A list of Butterflies taken in Sikkim in October 1880 with notes on habits L de Nicéville	19
	[M]	List of Mollusca from the hills between Man and Tandani W Theobald	11
	[A]	On some Lepidopterous insects belonging to the Rhopalocerous genera <i>Eurypus</i> and <i>Penthema</i> from India and Burma J Wood-Mason ...	85
	[G]	A sketch of the history of the fossils of the Gondwanian System O Feistmantel .	168
	[A]	Description of a new species of the Lepidopterous genus <i>Eurypus</i> from N E India J Wood-Mason	272
	[A]	List of Diurnal <i>Lepidoptera</i> inhabiting the Nicobar Islands J Wood-Mason and L de Nicéville	244
	[A]	Second list of Rhopalocerous <i>Lepidoptera</i> from Port Blair J Wood-Mason and L de Nicéville ..	244

Journ	[A]	Second list of butterflies taken in Sikkim in October 1882	
Vol.		L de Nicéville ... ..	54
LI	[M]	Notes on and drawings of the animals of various Indian	
Pt II.		<i>Pulmonifera</i> H H. Godwin-Austen .....	68
	[M]	On a Collection of Japanese <i>Clausilia</i> made by Brigade	
		Surgeon R Hungerford O F. Mollendorf ...	1
	[M]	<i>Clausilia Nevilliana</i> (Nicobars) O F Mollendorf .	11
	[M]	New Asiatic <i>Clausilia</i> O F Mollendorf ..	12
	[A]	Some new or rare species of Rhopalocerous <i>Lepidoptera</i>	
		from the Indian region. G F L Marshall .	37
	[A]	A new species of <i>Hipparchia</i> from the N W Himalayas	
		G. F L. Marshall ... .	67
	[A]	On new and little known <i>Mantodea</i> J Wood-Mason	21
	[A]	Second list of Diurnal <i>Lepidoptera</i> inhabiting the Nicobar	
		islands J Wood-Mason and L de Nicéville .....	14
Proc			
1865	[M]	On land Mollusca of Burma W T Blanford .. ..	72
1866	[A]	On fire-flies F Fedden ... ..	19
1868.	[G]	On rare Malayan animals A E Maingay..	127, 177, 194
	[M]	On <i>Nanina pollux</i> and <i>Helix propinqua</i> A E Maingay	263
1871	[M]	On the Anatomy of <i>Cremnoconchus</i> . F Stohetzka ..	108
1872	[A]	On <i>Nephiopsis stewarti</i> J Wood-Mason .. ..	151
1873.	[A]	Australian <i>Phasmidæ</i> J. Wood-Mason .....	150
	[A]	On <i>Carcinus mænas</i> J Wood-Mason .. ..	172
1874	[A]	On a secondary sexual character in <i>Squilla raphidea</i> J.	
		Wood-Mason .. .	2
	[A]	Drawings of blind Crustaceans J Wood-Mason ..	180
	[A]	On <i>Trictenotoma childreni</i> J Wood-Mason . .	181

Proc	[A]	A spider of the genus <i>Mygalc</i>	Wood-Mason	197
1875	[A]	Three new species of <i>Paratelphusa</i>	J Wood-Mason	230
	[A]	On a specimen of <i>Astacus modestus</i>	J Wood-Mason	231
	[A]	New Stomapod Crustaceans	J Wood-Mason.....	231
1876	[A]	A new species of <i>Astacoides</i> , with remarks on the Systematic position of the New Zealand <i>Astacidae</i>	J Wood-Mason	4
	[A]	Species of <i>Iapyx</i> , <i>Scolopendrella</i> , &c	J Wood-Mason	174
	[A]	Femoral Brushes of <i>Alantidae</i>	J Wood-Mason ..	123, 176
1877	[A]	Note on the floral simulation of <i>Gongylus gongylodes</i> , Linn,	J Anderson	193
	..			
1880	[A]	Butterflies from the Andamans, Masuri and Sibsagar	J Wood-Mason	102, 123
1882	[A]	On the Anatomy of the Scorpion Spiders ( <i>Thelyphonus</i> )		
		Part I The scent glands	J Wood-Mason	59
	[M]	On the structure of the "foot" in certain Terrestrial <i>Gasteropoda</i>	J Wood-Mason	60
		N. B —For notices of the Invertebrata published in the 'Proceedings' previous to 1865, see below		

As Res

## IV.

## BOTANY.

Papers on the Buimese Flora are marked [B]

Vol I	Mahwa Tree	Lieut C Hamilton	.....	306
II 1790	A treatise on the plants of India	Sir W Jones	. . .	345
	Spikenard of the Ancients	Sir W Jones	.. .	405
III 1792	A description of the Plant <i>Butea</i>	W Roxburgh	..	469
IV 1795	Plant <i>Morinda</i> and its uses	W Hunter	..	35
	Select Indian plants with their Sanscrit and Vernacular names	Sir W Jones	... ..	229
	Selected Indian plants	Sir W Jones	.. .	257
	<i>Jonesia Asola</i>	W Roxburgh	... ..	356, 405
	Botanical observations on the Spikenard, <i>Valeriana Jatamanse</i> of the ancients	W Roxburgh	....	
V [B]	Description of a Tree, called by the Burmas, Launzan	F Buchanan	. . . . .	123
[B]	<i>Uiceola elastica</i> , or Caout-chouc Vine of Sumatra and Pulo-Penang	W Roxburgh	. . . . .	167
VI 1799	Plants collected between Hardwar and Srinagar	T Haedwicke	....	348
	A Botanical and Economical account of <i>Bassia Butyracea</i> or East India butter tree	W Roxburgh	... .	477
IX 1807	On <i>Olibanum</i> or Frankincense with description of <i>Bqswellia serrata</i> , Roxb.	H T Colebrooke	.....	377
X 1808	The Plant, which furnishes the medicine called <i>Columb</i> or <i>Columba Root</i>	Dr A Berry	... .	385
XI 1810	A Catalogue of Indian Medicinal Plants and Drugs, with their names in Hindustani and Sanscrit	John Fleming		153
.	Descriptions of several of the Monandrous Plants of India, belonging to the natural order called <i>Scitamineæ</i> by Linnæus, <i>Cannæ</i> by Jussiu, and <i>Drumyrhizæ</i> by Ventenat	W Roxburgh,	....	318
XII 1816	On the <i>Dryobalanops Camphora</i> of Sumatra	H T Colebrooke	... ..	
	Two new species of <i>Sarcolobus</i> , and some other Indian Plants	N Wallich	..	
XIII. 1820	Some rare Indian Plants	N Wallich	....	369
	New <i>Camellia</i> , Nepal.	N Wallich	.....	428

As Res	Two genera of the Family of <i>Hamamelidaceæ</i> , two species of	
XIX Pt I	<i>Podostemon</i> , and one of <i>Kaulfussia</i> William Griffith	94
Journ I	Botanic Garden at Saharanpur J H Royle	41
II 1833	List of Indian woods collected by N Wallich	167
	Note on the fossil Palms lately discovered on the Table-	
	land of Singor in Central India H H Spry	639
V. 1836	Some grasses, from the Jheels of the District of Sylhet	
	William Griffith	570
	Development of Pollen William Griffith	732
	Remarks on a Collection of Plants made at Sadya, upper	
	Assam from April to September, 1836 W Griffith	806
VII 1838	The Chaoutchou Tree of Assam William Griffith	132
	Botanico-Agricultural account of the protected Sikh States	
	M P Edgeworth,	151
VIII. [B]	Burmese and Manipur Varnish Tree N Wallich	70
	Note on the Scapes of <i>Xanthorrhæa</i> and Fossil Stems of	
	<i>Lepidodendria</i> Lieut N Vicary	685
X 1841.	On Lichens in the Himalayas Henry Cope	828
	A connected view of the species of Lichens, with the Bota-	
	anical relationship existing between them and the Indian	
	productions Henry Cope	888
XI 1842	Botanico-Agricultural account of the protected Sikh States,	
	M P Edgeworth	26
	Observations on the genus <i>Spathium</i> M P Edgeworth	145
XIII 1844	Flora of the Naga Hills J W Masters	707
XVI 1847	Herborisation at Aden M P Edgeworth	1211
Pt II	The Liquidamber tree, Tenasserim Rev F Mason	532
XVII [B]	Observations made when following the Grand Trunk road	
Pt I	across the hills of upper Bengal, Parasnath, &c Dr J	
	D Hooker	355
XVIII [B]	The Pine tree, Tenasserim Rev F Mason	73
	Notes, chiefly Botanical, made during an excursion from	
	Darjiling to Tonglo, a lofty mountain on the Confines of	
	Sikkim and Nepal J D Hooker	419
XXI 1852	Catalogue of Plants found in the Banda district 1847-49	
	M P Edgeworth	151, 240, 563
XXV 1856	Notes on the Herbarium of the Calcutta Botanic garden,	
	with especial reference to the completion of the <i>Flora</i>	
	<i>Indica</i> Thomas Thomson	405
XXVIII	Notes on the Flora of Lucknow with Catalogues of the	
	cultivated and indigenous plants T Anderson	89



Journ [B]	Notes during a tour from Moulmein to the three Pagodas, and in Shan States Rev C Parish .....	457
XXVIII.		
XXXII	On the flora of Behar and the mountain Parasnath, with a list of the species collected by Messrs Hooker, Edgeworth, Thomson and Anderson Thomas Anderson	189
1863	Flora of the Peshawur Valley J L Stewart. .	219
XXXIII	Vegetation of the Jhelum (Punjab) J E Aitchison	290
XXXIV.	Remarks on the vegetation of the islands in the Indus river J. E T Aitchison .....	53
Pt II		
XXXVI	On the Reproductive functional relations of several species and varieties of <i>Verbascum</i> J Scott . . .	143
Pt II.	<i>Pandanophyllum</i> and allied genera S Kurz . .	70
	Notes on the Flora of Manbhurn V. Ball .....	112
XXXIX	New or imperfectly known Indian plants. S Kurz .	61
Pt II.	<i>Gentiana Jäschkei</i> re-established as a new genus of <i>Gentianaceæ</i> S Kurz . . . . .	229
XL	New or imperfectly known Indian plants. S Kurz	45
Pt. II [B]	<i>Algæ</i> collected by Mr S Kurz in Burma and adjacent islands G von Martens .....	461
XLI [B]	New Burmese plants. Pt I, S Kurz .....	29
Pt II		
XLII Pt II	Do Do. Pts II and III .....	59, 227
XLIII [B]	Contributions towards a knowledge of the Burmese Flora S Kurz .....	39
Pt II.	Descriptions of a few Indian plants S Kurz .....	181
[B]	Enumeration of Burmese Palms S Kurz .....	191
XLIV [B]	Burmese Flora S Kurz . . . . .	128
Pt. II.	Notes on a few new Oaks from India S Kurz..	196
	Description of a new species of <i>Tupistra</i> , S. Kurz ...	198
	Descriptions of new Indian Plants S Kurz .....	199
XLV	Vegetation of the Nicobar Islands S Kurz .	105
Pt. II [B]	Burmese Flora S Kurz . . . . .	204
	Fossil Flora in India O Feistmantel . . . . .	329
XLVI [B]	Burmese Flora S. Kurz . . . . .	49
L Pt II	Fossils of the Gondwana System. O Feistmantel...	168
Proc 1866	On <i>Eurya chinensis</i> Dr T Anderson . . .	109
	On Comestible jungle fruits. V Ball . . . . .	237
1882	On torsion in the awns of Spear Grass J Cockburn ..	49

A. B.

V

GEOGRAPHY

[N B—[A] = Afghanistan and Central Asia [B] =  
Burma, the Islands in the Bay of Bengal, &c [H]  
= Himalayan Geography [N I] = Northern India  
[C I] = Central India [E I] = Eastern India  
[W I] = Western India [S I] = Southern India]

Vol I	[H]	Account of a journey to Tibet S Turner	206
II	[H]	Account of Nepal Father Giuseppe	307
	[B]	A short description of Carnicobar G Hamilton	337
III	[B]	On the Nicobars Nicolas Fontana . . . .	119
IV	[B]	Namroo and Comarty Lieut R H Colebrooke	129
	[B]	Andaman Islands R H Colebrooke	385
VI	[C I]	Narrative of a journey from Agra to Ougem W Hunter	7
VII	[N I]	On the Course of the Ganges through Bengal Major R H Colebrooke . . . . .	1
	[C I]	Narrative of a Route from Chunar to Yertnagoodum, (Illor) Capt J T Blunt	57
	[S I]	An account of a method for extending a Geographical Sur- vey across the Peninsula of India W Lambton	312
XI	[H]	On the sources of the Ganges H T Colebrooke . .	429
	[H]	Narrative of a survey for the purpose of discovering the sources of the Ganges Capt F V Raper . . .	446
XII	[H]	Height of the Himalayas H T Colebrooke . . .	251
	[H]	A journey to Lake Mansarovara in Undes W Moor- croft With introductory note by H T Colebrooke	375
XIII	[H]	An account of a Journey to the Sources of the Jumna and Bhagirathi rivers J. B. Fraser . . . .	171
	[H]	Memoir relative to a survey in Kumaon Capt W S Webb	293
XIV	[H]	The principal peaks of the Himalayass Capt J A Hodg- son and Lieut J D Herbert . . . . .	187
XV	[H]	On Bhut in Kishen Kant Bose . . . . .	128
	[S I]	Orissa Proper or Cuttack A Stirling . . . . .	163
	[H]	Tour made to lay down the course and levels of the river Sutlej or Satudrá, performed in 1819 Capt J D Herbert	339
XVI	[E I]	Geography of Asam Capt John Bryan Neufville . .	331

As Rs [E I]	Memor of a Survey of Assam and the Neighbouring coun-	
XVII	tries, executed in 1825-6-7-8. Lieut R Wilcox	314
[E I]	Journey across the Pandua Hills H Walters	499
[H]	Route from Cathmadu to Tazedo on the Chinese Frontier	
	B H Hodgson	513
XVIII [H]	Observations on the Spiti Valley and circumjacent country	
Pt II	within the Himalaya J G Gerard	238
Journ [H]	Geographical notice of Tibet Csoma de Koros.	121
I [B]	Account of the Barren islands in the Bay of Bengal drawn	
1832	up by the late Dr J Adam	128
[A]	A sketch of the route and progress of Lieut A Burnes and	
	Dr Gerard By a recent Traveller	139
II [A]	The route of Lieut A Burnes, and Dr Gerard, from	
1833	Peshawar to Bokhara, and Bokhara to Meshed	1, 143
[B]	Ava to Kendat D Richardson	59
[A]	Description of Bokhara Lieut A Burnes	224
III [C I]	Some remarks upon the country to the South-West of Hos-	
1834	hungabad and Kálabheet hills R H Miles	61
[E I]	Journal kept by Capt F T Grant, during a tour of Inspec-	
,	tion on the Manipur Frontier along the course of the	
	Ningthi river, &c	124
[A]	Dera Ghazi Khan, through the Veziri country to Kabul	
	Di Honigberger	175
[A]	Note of a pilgrimage undertaken by an Usbek and his two	
	sons from Khokend or Kokan, in Tartary, &c, to Mecca	
	W H Wathen	379
	Georgia, Persia, and Mesopotamia R Mignan	576
[B]	Naning, in the Malayan Peninsula Lieut J T Newbold	
		601
IV 1835	Georgia, Persia and Mesopotamia Capt Mignan	271, 332
[A]	Memor on Khokend W H Wathen	369
[B]	Island of Rambree Lieut Wm Foley	20, 82, 199
[E I]	An excursion to the Tea Hills which produce Ankooy Tea	
	G J Gordon	95
	Report on the island of Socotra Lieut. J R Wellsted	138
	Voyage from England to Calcutta in 1831 Lieut T	
	Hutton	167
[B]	Naning in the Malay Peninsula J T Newbold	297
	Heavando Pholo, the Northern Atoll of the Maldive islands	
	Lieut T Powell	319
	Notes of a tour through Palestine	438

Journ' [B]	Sungi Ujong one of the States in the interior of Malacca	
Vol IV	Ensign T J Newbold . . . . .	537
1835 [B]	Journal of an attempted ascent of the river Min, to visit the Tea plantations of Tumkin Provinces of China G J Gordon . . . . .	553
	Territory and Government of Iskandoh Capt C M Wade	589
	Georgia, Persia, and Mesopotamia Capt R Mignan	602
V [B]	Rambowe in Malacca T J Newbold . . . . .	61
1836 [B]	Johole and its former dependencies of Jompole Gominehi T Newbold . . . . .	257
[B]	The neighbourhood Moulmein Capt W Foley . . . . .	257
[W I]	Peshawar and the country comprised between the Indus and the Hydaspes M A Court . . . . .	468
. [B]	Perak, Sincenanti, and other States in the Malaya Peninsula Lieut T J Newbold . . . . .	505, 561
[B]	Petty States lying north of Tenasserim drawn up from the Journals and reports of D Richardson . . . . .	601, 688
[W I]	A brief account of Masud, known by the name Fauid Shakarganj or Shakarbar Munshi Mohun Lal . . . . .	635
VI [E I]	Journal of a route travelled by Capt S F Hannay, from Ava to the Hukong valley on the South-East Frontier of Assam Capt R Boileau Pemberton . . . . .	245
1837	Mishmee hills, Assam W Griffith, . . . . .	325
[E I]	Cochin China Rev Jean Louis . . . . .	737
[B]	Valley of Kashmir, Ghazni and Kabul G J Vigne . . . . .	766
[H]	Expedition to Kiang Hung on the Chinese Frontier Lieut T E MacLeod . . . . .	989
[B]	Expedition from Moulmein to Ava through the Karen country D Richardson . . . . .	105
VII [W I]	Kala Bagh on the Indus Mohun Lal . . . . .	25
1838 [S I]	Journal of a tour in Orissa Lieut Maikhram Kittoe	1060
[H]	Note of a visit to the Niti Pass J H Batten . . . . .	310
[B]	Geography of Cochin China Rev Jean Louis . . . . .	317
[A]	The plain of Koh-i-Daman, and the country from the Indus to Kabul P B Lord, . . . . .	521
[E I]	Account of the country occupied by the Bor Senaputtee S C Hannay . . . . .	671
[B]	A portion of Mergui Capt R Lloyd . . . . .	1027
VIII [W I]	Account of a journey to Beylah, and Memoir on the Province of Lus Lieut Carlross . . . . .	184
1839		

Journ	[H]	Journal of the Mission, which visited Bhootan in 1837-38	
Vol VIII		under Capt R Boileau Pemberton W Griffith	208, 251
1839	[S I]	Account of a journey from Calcutta <i>via</i> Cuttack and Puri to Sambalpur, thence to Midnapur through the Forest of Orissa Lieut M Kittoe .....	367, 474, 671
	[E I]	Narrative of an Expedition into the Naga territory. E R Grange ... ..	415
	[H]	Journal of a trip through Kunawui, Hungiung and Spiti Lieut T Hutton ... ..	901
	[B]	Report on Tenasserim. John William Helfer . . .	973
IX	[B]	Journal of a Mission from the Supreme Government to the Court of Siam Di Richardson ....	1016
1840.	[B]	Mission to the Court of Siam Di Richardson	1, 219
	[W I]	Some account of a journey from Kurrachee to Hinglaj, in the Lus territory Capt Hart ....	134
	[H]	Journal of a trip through Kunawui, Hungiung and Spiti. Lieut T Hutton .. ...	489, 555
	[A]	Physical Geography of Seistan Capt E Conolly ..	710
	[C I]	Notes of a march from Bimham Ghat on the Narbada to Amarkantak, the source of that river G Spilsbury	889
	[W I]	Report on the country between Karáchi, Tatta and Schwan, Sind Capt. E P De la Hoste . ....	907
	[E I]	Extracts from the journal of an expedition into the Naga hills on the Assam Frontier Lieut Giange .....	947
X	[H]	Abstract journal of the routes of Lieuts A Bloome and A. Cunningham to the sources of the Punjab rivers	1, 105
1841	[A]	Extracts from demi-official reports, by Capt Arthur Conolly, on a Mission into Khairássa .....	116
	[E I]	Despatch from Lieut H Bigge, Assist Agent detached to the Naga hills to Capt Jenkins, .....	129
	[B]	Province of Aracan Henry Harper Spry ... ..	138
	[A]	The country of the Tookoman tribes Capt Edward Stirling .....	290
	[A]	Journal kept in Seistan Capt E Conolly .....	319
	[B]	Report on Cheduba. Edward P Halsted .....	319
	[W I]	The recent Cataclysm of the Indus Falconer .....	615
XI	[A]	Valley of Jellalabad Lieut MacGregor .....	117
1812	[B]	The isle of St Martin's C B Greenlaw .....	309
	[H]	Narrative of a Journey from Subathu to Shipke, in Chinese Territory in 1818 Lieut A. Gerard ....	363
	[B]	Pakung Yeh in Ava to Aeng in Arracan Lieut Trant	1136

Journ. [H]	Capt Manson's journal of a visit to the Melum and the Oont	
Vol XI	Dhura Pass in Juwahur J H Batten . . . . .	1157
XII [W I]	Report on Upper Sind and the Eastern portion of Cutch	
1813	Lieut J Postans .. . . .	23
[W I]	Various routes in Sind, from official documents from Bombay, of March 1810 . . . . .	44
[W I]	Road from Sind, and from Subzul to Shikarpur Mr Nock	59
[H]	Journal of Lieut J A Weller on a trip to the Buleha and Oont Dhoori Passes J H Batten, . . . . .	78
[B]	Report of a visit to the Pakehan river, and of some Tin localities in the Southern portion of the Tenasserim provinces Capt G B Tremenhoe, .. . . .	523
[W I]	Journal of a tour through parts of the Panjab and Afghanistan in the year 1837 Agha Abbas of Shiraz arranged and translated Major R Leech . . . . .	564
XIII [A]	A description of Seisthan Lieut R Leech, . . . . .	115
1811 [A]	Routes from Candahar to Herat, . . . . .	121
[H]	Notes on Moorcroft's travels in Ladak, and Gerard's account of Kunwar, including a general description of the latter district Lieut J D Cunningham... .	172, 223
[A]	Herat to Simla, via Candahar, Cabul and the Panjab Major Tod . . . . .	339
[W I]	Route from Dera Ghazi Khan to Candahar Maj R Leech . . . . .	527
[E I]	Notes on the Kaser hills and people Lieut H Yule	612
[A]	Notes taken on a tour through parts of Beluchistan, in 1838 and 1839 Hjee Abdul Mubee Arranged and translated by Major Robert Leech . . . . .	667, 786
[H]	Journal of Captain Herbert's tour from Almora through parts of Kumaon and British Garhwal J H Batten	734
[E I]	Journey into the Naga hills Wood . . . . .	771
[W I]	Itinerary from Yezd to Herat .. . . .	827
[W I]	A geographical Notice of the Valley of Jellalabad Capt G H MacGregor . . . . .	867
XIV [E I]	The neighbourhood of the Soobanshi river, Assam Lieut E. T Dalton . . . . .	230
1815 [C I]	The course of the Narbadi Lieut-Col Ouseley . . . . .	354
[E I]	The Mishmee hills to the north-east of Sudyah Lieut E A Rowlitt .. . . .	477
[W I]	Account of parts of the Cabul and Peshawar territories, and of Sama, Sudaom, Bunher, Swat, Dur and Bajour, visited by Mulla Ahem-Ulla Major R. Leech . . . . .	660

[W I]	Journal	Account of the Panjkora Valley and of lower and upper Kashkar, by Raja Khan of Cabool Translated by Major Leech . . . . .	812
	Vol XIV		
XV	[B]	Notice of the Nicobar islands Rev J Barbe . . . . .	344
XVII	[H]	Phari in Thibet to Lassa, with appended routes from Darjeeling to Phari A Campbell . . . . .	257
1848			
Pt I	[B]	The practicability of a direct trade overland between Calcutta and China Baron Otto des Granges . . . . .	132
Pt II.	[H]	Narrative of a journey to Cho Lagan, (Rakastal), Cho Mapan (Manasarovar) and the Valley of Pruang in Guari, Hundes, in September and October 1846 Lieut H Strachey . . . . .	98, 127, 327
	[C I]	Dhari falls to the Hiruphal. Capt Fenwick . . . . .	210
	[H]	The British Himalayan frontier in Kumaon and Gurhwal Lieut H. Strachey . . . . .	532
	[H]	The seven Co'sis of Nepal. B H Hodgson . . . . .	646
	[H]	Routes from Darjiling to Thibet. A. Campbell . . . . .	488
	[H]	Route from Katmandu to Darjiling B H Hodgson . . . . .	634
XVIII	[H]	Snow line in the Himalaya. Lieut R Strachey . . . . .	287
1849	[H]	Kohistan of the Jullunder. Lieut W H Parish . . . . .	360
	[H]	Darjiling to Tongl6, a lofty mountain on the confines of Sikim and Nepal J. D Hooker . . . . .	419
	[H]	Journal of a trip to Sikim. Dr A Campbell . . . . .	482
	[W I]	Narbad4 from Chikulda to Broach. Capt Fenwick . . . . .	461
	[A]	Western Afghanistan Major W Anderson . . . . .	553
	[H]	The Turan and outer mountains of Kumaon Major E Mad-den . . . . .	603
	[W I]	Pind Dadud Khan and the Salt Range A Fleming . . . . .	661
	[H]	Physical Geography of the Himalayas. B H. Hodgson . . . . .	761
XIX.	[W I]	The district of Jhulum L Bowing . . . . .	43
	[H]	Notice of a trip to the Niti Pass Lieut R Strachey . . . . .	79
XX	[N I]	The Rajmahal hills Capt W. S Sherwill . . . . .	544
1851	[W I]	Report on the Turan Mall hill Capt Thurburn . . . . .	502
XXI	[H]	Sikim to the Frontier of Thibet Dr A Campbell . . . . .	407, 477
	[N I]	Kurrukpore hills Capt S. R Sherwill . . . . .	195
XXII	[A]	Ibu Huakul's account of Khorasan Major W Anderson . . . . .	152
1853			
	[A]	Notes on the sources of the Amoo or Oxus, extracted from the journal of Mr Gardiner M P Edgeworth . . . . .	431
	[H]	Central Asia, Abstract of a journal kept by Mr Gardiner, with introduction M P Edgeworth . . . . .	283





Journ [A]	Notes on Central Asia M Semenov Communicated by	
Vol XXXIV	Lieut Col J T Walker .. . . .	113
Pt II [B]	Notes of a trip up the Salween. Rev. C Parish .....	135
1865		
XXXV [A]	Russian Geographical operations in Central Asia. (Com-	
Pt II	municated by Lieut Col F T, Walker) .. . .	77
XXXVII		
Pt II [H]	Lake districts of Ladakh H Godwin-Austen .. ...	84
XXXIX		
Pt II [H]	Trans-Himalaya explorations Major T G Montgomerie	47
XL, Pt II		
[H]	Independent Sikkim W T Blanford . . . . .	367
XLVIII		
1879 [E I]	The route over Patkai <i>via</i> Nongyang S E Peal ...	69
[A]	Survey operations in Afghanistan in connection with the	
	Campaign of 1878-79 J. Waterhouse ... ..	146
[E I]	Report on a Visit to the Nongyang Lake, on the Burmese	
	Frontier S E Peal . . . . .	1
Proc [A]	Physical Geography of High Asia R Schlagintweit	21
1866 .		
1878. [A]	Trans-Frontier Explorations Col Walker .....	107

As Res

## VI.

## ETHNOLOGY.

[A B — Notices of the Kolarian tribes are distinguished  
by [K]]

Vol II	The Arabs	Sir W Jones	.. .. .	1
1790	The Tartars	Sir W Jones	... ..	19
	The Persians	Sir W Jones	.....	43
	The Kukis of Tripura	J Rawlins	. . . . .	187
	The Chinese	Sir W Jones	. . . . .	365
III 1792	Borderers, mountaineers and islanders of Asia	Sir W Jones	. . . . .	1
	On the Garos	J Eliot	.. .. .	17
IV [K]	Inhabitants of the hills near Rajmahal	T Shaw	..	45
VI 1799	The inhabitants of the Paggyar Nassau islands lying off Sumatra	J Crisp	. . . . .	77
VII 1801	The Kukis	John MacRae	.. . . .	183
	Bazeegurs (denominated Nats)	D Richardson		457
XII 1816	On the Malaya Nation	T Raffles	... .	102
XVI 1828	On the population of Assam	J B Neufville	....	331
	Notice of the Khyen Tribe inhabiting the Yunan mountains, between Ava and Aracan	T A Trant	... ..	261
XVII	Memoir of Asam [Khamtis &c]	R Wilcox	.....	314
1829	Journey across the Pandua Hills near Silhet [Kasiás &c]	H Walters	.. . . .	499
Journal	The Military Tribes of Nipul	B H Hodgson	..	217
Vol II	The Jâts of Bharatpur	G T Lushington	.....	273
III 1834	The Siah Posh tribe or reputed descendants of the Macedonians	Mohan Lal	... ..	76
	Aborigines of Nepal Proper	B H Hodgson	..	215
IV 1835	The inhabitants of Ramri	Foley	. . . .	20, 82, 199
	The tribes of the Piney Hills	Madura Ward	... .	66
V 1836.	Mountain Tribes on the N E Frontier	McCosh	..	193
VII 1838	On the Siah Posh Kaffirs	Capt Alex. Burnes	..	325
	The Moa-Morah sect	Capt S C Hannay	....	671
VIII 1839	The Nagas	B Otto de Grange	.. ..	445
	The inhabitants of Tenasserim	J W Helfer		973
IX	The Lepchas of Sikkim	A Campbell	.. ..	379
1840	The Limbus and other hill tribes	A Campbell	..	595
[K]	The Hodesum	Lieut S R Tickell	..	694, 783, 1063

Journal	
Vol IX.	The Eusofzye tribes of Afghanistan E. Conolly . . . 924
1840	On the Nagas Otto de Grange . . . . . 947
X [K]	The Kujjukzyes (Upper Sind) Capt N Hart .. . 1214
1841	On the Hodesun S R Tickell.. . . . 30
	On the Nagas H Bigge . . . . . 129
	Note on the Brahoons Capt Hart . . . . . 136
	The Toorkoman Tribes E. Stirling . . . . . 290
XI 1842	Certain hill tribes in Sikkim A Campbell . . . . 4
[K]	Notes on the Bendkar, a people of Keonjhar (Savaras). Lieut S R. Tickell . . . . . 205
XIII 1844	On the Migratory tribes in Central India E Balfour 1
	The Miyer Theya Somalees Lieut C J Cruttenden 319
	On the Kasias Lieut H Yule ' . . . . . 612
XIV 1845.	The early Ghiljai and the Hazaras. R Leech 306, 333
	The hill tribes, district of Chittagong Rev M Barbe 380
	The Miris and Abors (Asam) Lieut E Dalton ... 426
	On the Mishmis E A Rowlatt . . . . . 477
	The Esafzai Affghans Khásh Ali .. . . . 736
XVI 1847	Aborigines of the Sub-Himalayas Hodgson . . . . 1235
XVII 1848	<i>Addenda et Corrigenda</i> to the above B H Hodgson 73
	The Aborigines of Cential India B H Hodgson . . 550
	Tibetan Type of Mankind B H Hodgson . . . . . 222
	Dushani and Chianni Garos C. S Campbell . . . . 45
XVIII	Aborigines of Southern India B H Hodgson . . . . 350
1849	Aborigines of Nor-Eastern India B H Hodgson .. 451
	Note on Indian Ethnology B H Hodgson . . . . . 238
	Aborigines of the Eastern frontier B H Hodgson . 967
	The Kooch, Bodo, and Dhimal tribes B H Hodgson 702
XIX 1850	Aborigines of the N-E frontier and of the South B. H. Hodgson . . . . . 309, 461
XX, 1851	On the Dophlas. W. Robinson . . . . . 126
[K]	Inhabitants of the Rajmahal hills Col W Sherwill . 544
XXI 1852	The Henma or Shendoos, (N Aracan) .S R Tickell 207
	Two heads found in the Punjab W Jackson . . . . 511
XXII 1853	Caucasian and Mongolian Affinities B H Hodgson 26
	Indo-Chinese Borderers. B H Hodgson . . . . . 1
XXIII	Origin of the Afghans Lieut H G Raverly . . . 550
XXIV	Indian Veddás, south of Palamow H Piddington 207
XXV. 1856	Aborigines of the Nilgiris B H Hodgson . . . 31, 498
[K]	Puttoos or Juangas, Catak E A Samuells . . . 295
XXVI	Hill tribes of the Western boundary of the lower Derajat
1857	H G. Raverly . . . . . 177

Journal	People of the Shan States	R H Schomburgk.....	387
Vol	The tribes of the Eastern frontier	J. H O'Donel, and H	
XXXII	J Reynolds...	... .. .	400, 404, 407
1863			
XXXIII	Memoranda relative to three Andamanese	Colonel S R	
	Tickell	... .. .	162
[K]	The Tributary Mahals	Lieut Col T Dalton ...	1
XXXIV	The Boksas of the Bijnour district	Dr J. L Stewart	147
Pt II 1865	The Karens	Rev F Mason, D D .	173, 195
XXXV	Physical character of the Karens	F Mason . . .	1
Pt II	The Ethnology of India	Justice Campbell	Extra Num-
1866	ber . . . . .	... .. .	1
[K]	The "Kols" of Chota Nágpur	Lieut Col E T Dalton	
	Extra Number . . . . .	... .. .	153
XXXVI	Northern Frontier of Assam	Hessellmeyer . . . . .	192
Pt II	Dwellings, works of art &c, of the Karens	F Mason	125
1868	The Tribes of Bhutiana and Hainiana	W A Minas	171
XLVIII	Notes on some implements from the Khasi Hills and the		
1879	Banda and Vellore districts	J Cockburn .	133
Proc 1865	Stone implements	V Ball .. . . .	127
	Stone implements	W Theobald ... .. .	126
1866	Ethnology of Mergui	W Abbey . . . . .	243
	The worked gates of stone-age	W T Blanford	230
	Ethnology of Travancore and Cochin	E M Ross ..	242
1867	Ethnology of India	J B Davis . . . . .	121
	Aboriginal tribes of India	E Schlagintweit . . . . .	127
1868	Stone implements	V Ball . . . . .	177
	Celts	H F Blanford .. . . .	59
1869	On the Minas, Central India	Lieut-Col Showers .	238
	Stone implements from Burma	W Theobald . . .	181
1870	On the Andamanese	F Day, and V Ball ...	53, 177
	On Assam Celts	V Ball . . . . .	268
1871	On Chipped implements	W T Blanford .	179
1872	Celts in Western Yunán	Dr Anderson	47
1873	Stone implements from the Narbadá Valley	H B Medlicott	138
1874	Identification of Aboriginal tribes noticed in the "Ethnology of Bengal"	Col E T Dalton .. . . .	7
1875	The Khyeng of the Sandoway district	Arakan G E Fryer .. . . .	96
	The cranial characteristics of Mongoloid tribes of N E Frontier.	J Wood-Mason, . . . . .	97

Proc 1875	Stone implements from Kharakpur. V. Ball ..... .... 103
	On some stone implements of the Burmese type found in Dalbhum and Singbhum (Chutia-Nagpur). V. Ball 118
	Specimens of flint-cores and flakes from Sakhar and Rohri, on the Indus, Sind W. T. Blanford ..... 134
	Stone implements found in the river Mun Lockwood 102
1876.	On stone implements from Burma. Sir A. Phayre .. 95
1878.	Stone implements from Pares-Nath. V. Ball ... .. 125
1881.	The Nicobarese. Dr. A. F. Roepstorff ..... . 104

As Res

## VII.

## CHEMISTRY.\*

Vol. XV	Analysis of a Mineral water James Prinsep . . . . .	xiv
XVIII	The Fertilising principles of the inundations of the Hughli	
Pt I	II Piddington . . . . .	224
Journal	A method of preparing Strychnia J T Pearson . . . . .	42
Vol II	Analysis of the Ashes of four Indian Plants. J Stevenson . . . . .	322
1833	Chemical Analysis James Prinsep . . . . .	427
III 1831	Efflorescence of Sulphate of Soda, as found native in the Soil of Tirhut and Sarum, Behar J Stephenson . . . . .	188
IV 1835	Chemical Analysis James Prinsep . . . . .	509
V. 1836	Soil suitable for Cotton, Tobacco, Sugar and the Tea plant	
	II Piddington . . . . .	314
	Soil and Salt from the Sumbhur lake salt works J Stephenson . . . . .	792
VIII 1839	Arsenical Poisons etc W. B O'Shaughnessy . . . . .	147
X 1841	Soda Soils of the Burmahol Capt. Campbell . . . . .	159
	Reports on the Soils brought from Cheduba by H M S Childers II Piddington . . . . .	436, 447
XII 1813	<i>Puckiah</i> and <i>Phul Khari</i> H Piddington . . . . .	939
	Experiments relating to the effects of Sea-water on iron W B O'Shaughnessy . . . . .	1066
XVI 1847	Atmospheric dust from Shanghai H Piddington . . . . .	193
XXIII 1854	Quantity of silt held in suspension by the waters of the Hooghly at Calcutta in each month of the year H Piddington . . . . .	283
XXV. 1856	Quantity of Silt held in suspension by the Hooghly etc H Piddington . . . . .	151
	Bengal Mineral Waters H Piddington . . . . .	190
XXXV Pt II	Calcutta Water Supply, Pt I D Waldie . . . . .	203
XXXVI Pt II	Calcutta Water Supply, Pts II and III D Waldie I, 115	
XLII Pt II	Muddy water of the Hughli and the Calcutta Water Supply D. Waldie . . . . .	210
XLIX Pt II	On the Past and Present water supplies of Calcutta Alexander Pedler . . . . .	85
Proc 1865	On Peat Tween . . . . .	86
1866	Burmese Paraffine D Waldie . . . . .	72
1876	Radiometer as a photometer A Pedler . . . . .	187

\* Analyses of Minerals will be found among the Geological articles distinguished by [M]

As Res

## VIII.

## ECONOMIC SCIENCE AND STATISTICS.\*

Vol I.	Method of distilling at Ramguri .....	309
1788	Process of making Atar Col Pohar .. ..	332
III 1790	On the Manufacture of Indigo Lieut-Col C Martin	475
IV 1795	Natural Productions of Sumatra J Macdonald	19
V 1797	The Elastic Gum Vine of Prince of Wales' Island J Howison . . . . .	157
IX 1807	Pepper (Prince of Wales' island) W Hunter . .	383
XII, 1816	Population of Burdwan W B Bayley . .	547
XVI 1828	Sketch of Kumaon G W Traill ..	137
	Statistical Sketch of Aikan C Paton .	353
XVII 1832	Bhutta Mahals of Kamaon G W Traill . .	1
	Census of population of Benares J Prinsep ..	470
	Census of the city Dacca H Walters . .	535
XX 1836	Mortality in British India H B Henderson	190
Journal	Nepalese method of making paper B H Hodgson ..	8
Vol I	Population of Allahabad .. .	34
1832	The Lacquered ware of Ava H Burney .	169
	Native manufacture of Steel in India Dr Voysey	245
	Estimate of the risk of life to Civil Servants of the Bengal Presidency H T Prinsep ...	277
	Timber trade in Cachar . .	305
	Articles of <i>Materia Medica</i> , obtained in the Bazars of India. J F. Royle . . . . .	458
II 1833	Manufacture of Saltpetre in Tirhut J Stevenson .	23
	Native manufacture of Turpentine .. . . .	248
	Area of the Kingdoms and Principalities of India ..	488
	Population of the city and district of Murshidabad, taken in 1829 . . . . .	567
	Nipal paper stuff G Swinton .. ..	93
III 1834	Manufacture of common Salt J Stephenson	36
	The aptitude of the Himalayan range for the culture of the tea plant. H Falconer . . . . .	178
	Population of the city and district of Allahabad .	244
	Abstract statement of 412 villages in district Bareilly H S Boulderson .. . . .	475

\* Meteorological Statistics have been included in section I, and  
Statistics of Earthquakes in section II

Journal Vol	Price of grain at A'ghar from the year 1804 to 1832	E
	Stirling ... ..	620
III 1831		
IV 1835	The Nepalese Spirit Still A Campbell .....	282
	Analysis of raw silk J W Lairdlay ... ..	710
V 1836	The preparation of Opium for China D Butler	165
	Returns (agricultural, &c) of Mathura District, made up to 1st October, 1835 R. Wroughton . .	216
	Cotton Spinning, Weaving, Printing, Dyeing in Nepal A Campbell .....	219
	The Satin embroidered Scarfs of the Tibetan Priests T H A Llyod . . . . .	383
VI 1837	The Silkworms and Silks of Assam Thomas Hugon	21
	The indigenous Silkworms of India T W Helfer	38
	The risk of life to Civil Servants of the Bengal Presidency. H T Prinsep .. . . .	341
	Silk cloth dyed from the leaves of Teak B Burt	242
VII 1838	Botanico-Agricultural account of the protected Sikh States M P Edgeworth .. . . .	751
	Table of Mortality for ages from birth to twenty years, framed from the Registers of the Lower Orphan School, Calcutta H T Prinsep . . . . .	818
	Population and Mortality in Calcutta ...	888
	Weights, &c, of Cabul and Bokhara Furdoonjee	892
VIII 1839	Isinglass in <i>Polynemus sole</i> , Buch J McClelland ..	203
	The cultivation of Roses, and the Manufacture of Rosewater and Attar at Ghazipur ..	411
	The Native mode of preparing the perfumed oils of Jasmine and Bela Dr Jackson . . . . .	496
	The Manufacture of Tea, and the extent and produce of the Tea Plantations in Asam C A Bruce .	497
	The habits of the Coel, and the discovery of Isinglass. Major Davidson .. . . .	684
	Table of Mortality among Hindu Females Dr Kean	704
	The Indian hemp W B O'Shaughnessy ....	732, 838
	Soil produce, &c, of Afghanistan and the neighbouring coun- tries Lieut Irwin . . . . .	745, 779, 1005
	The duration of diseases in 13,019 fatal cases in Hindus Extraordinary mortality among lying-in Women Dr D Stewart . . . . .	316
IX 1840	The soil, produce, &c of Afghanistan and the neighbouring countries. Lieut Irwin .. ....	33, 189





Journal	Jungle products used as articles of food by the Inhabitants of the districts of Mánabhum and Hazaribag	V Ball	73
Vol			
XXXVI			
Pt II			
1867			
XXXVII	Additions to the knowledge of silk	Capt T Mitchell	169
Pt II			
1868			
XXXIX	Statistical data of Asiatic Russia	R. Mitchell	.... 41
Pt II			
1870			
XLVIII	Ravages of Rats and Mice in the Dakhin, 1878-79	S B	
1879	Fairbank . ..	.. ...	143
Proc 1869	The Famine Food of Marwar	G. King	116
1881	The nature and use of fire sticks	V Ball	72

# INDEX OF NOTICES PUBLISHED IN THE PROCEEDINGS (1832-64).

## I

### GEOLOGY.

*N B*—Mineralogical notices are distinguished by [M]

#### Vol. of Journal (Proceedings)

I	Elephant Hill, Queddah coast	Dr Ward	...	157
"	Boring in Fort William	Dr Strong	.	473
II	Sandstone of Sikrigali, with vegetable impressions of ferns, &c	Dr Langstaff	. . . . .	45
"	[M] Wood-oil from the Tenasserim provinces	G Swinton	. . . . .	93
"	Voysey's geological specimens	Dr Malcolmson	...	94
"	[M] Copper-ore from Nellore	Mr Ker	..	16
"	Specimens of the coprolite	Dr Wallich	... . . . .	151
"	Boirings in Fort William	Major Benson	.. . . .	153
"	[M] Minerals from Manipur, Kachar, and Assam	Pemberton	... . . . .	205
"	[M] Peshawar Coal	Lieut Burnes	. . . . .	267
"	[M] Coal in the Arracan district	W Foley	. . . . .	368
"	[M] Hoshungabad Coal	Capt J R Ouseley	. . . . .	647
"	Fossil bones, Kankai, and rocks	Lieut T S Burt		648
"	[M] Coal from the sandowy district	H Walters		263
"	[M] Himalayan coal and gold	E J Ravenshaw	.	264
III	[M] Coal near Bhullea, 14 miles south of Házáribág	J Wilkinson	. . . . .	142
"	[M] Lead, copper, antimony, iron and arsenic from Ava	Burney	. . . . .	194
"	Geological specimens from S India	Lieut Braddock	... . . . .	16
"	[M] Limestone in Asam.	Capt F Jenkins,	. . . . .	303
"	An aerolite at Hissar	R Everest	... . .	413
IV	[M] Minerals from the neighbourhood of Kábul	Syed Keramat Ali	... . . . .	517

VI	Elastic sandstone. Dr. H Falconer .....	240
"	[V] A new site of coal in Upper Assam Lieut H Bigge	243
"	[M] Coal beds in the Ungool and Hindon, near the Kursua and Butrami rivers Lieut Kittoe ..	320
"	Boring operations at Fort William D M McCleod	498
VII	[V] New sites of coal in Assam Dr McClelland .	169
"	[M] Coal from the neighbourhood of Házárubág Dr A Drummond . ..	170
"	[M] Coal from a new site near the Damuda Lieut J Hannington ..	285
"	[V] Coal and iron of Assam Captain Hannay . . . .	368
VIII	[M] Coal near Jabalpur G. G Spilsbury ... ..	530
IX	Society's Museum of Economic Geology H Piddington, .. ....	1148
XI	The Earthquake, 11th November, 1842 H T Prin- sep ... ..	1201
XII	Eruption at Khyuk Phyu Howe 255 336,	622
"	[V] Newly discovered sulphur bed, at Kūrachee .. . . .	833
"	[V] Copper mine in Round Island D Williams .....	915
"	Earthquakes in Assam Capt Hannay . . .	919
"	Volcanic island off Cheduba .	1014
"	Geology of the Cheduba group Captain Russell	1114
XIII	[V] Iron ores of Huapur (Bundelkhand) J N Oldfield	vii
"	[M] Lignite of Beypoor, near Calicut Captain Newbold	xxxiv
"	Volcanic eruption in False Island T R Davidson	xxxv
"	Geological specimens from Western India ...	xxxvi
"	Specimens of rocks and soils, Lower Assam J N Martin . . . .	1
"	[M] Subject of Behar Lieut Sherwill . . . . .	lxxxiii
XIV	Volcano of Killanea J H Low .	xxii
"	Hot Springs of Chittagong R Price	xxiii
"	Eruption of a submarine volcano seen from Khyouk Pheyoo D Williams .	xxv
"	[M] Graphite from Trevandrum Major-General Cullen	lxiv
XV	[M] Ore of Cerium from Southern India H Pidding- ton . . . . .	lxii
"	[M] Lead and Antimony from Hisato, Chota-Nagpore H Piddington .....	lxiv
"	Volcanic eruption at Kyouk Phyo Major Williams	xcii
XVI	Earthquake or eruption near Mandla D Briggs	380
"	Volcanic island off the coast of Coromandel, from the Annual Register, Vol. 1st, 1758 .	499

<b>XVI</b>	Fossil bones in the "secondary formation" of the Himalayas Capt. Vicary . . . . .	1266
<b>XVII</b>	[M] Coal from Jaipur, Assam Major Hannay . . . . .	167
"	[M] Ball coal from the Sitárámpur colliery J Hom- fiay . . . . .	703
<b>XIX</b>	[M] Coal from Laboan Wallage . . . . .	156
"	[M] Silver ores of Deoghur H Piddington . . . . .	565
<b>XX</b>	[M] The coal and Pyrites from near Afzulpoor on the Adjí Nullab, 16 miles north of the Ranigunge collieries W S Sherwill and H Piddington . . . . .	365
"	[M] Coal from Gomeah, near Házáribág Capt Haugh- ton . . . . .	439
<b>XXI</b>	[M] Graphite from Kuiseong Captain Sherwill . . . . .	538
<b>XXII</b>	[M] Lion ore, Hill of Karona, 10 miles from Lahore. Major Baker . . . . .	207
"	Fossiliferous limestone from Girbee in the Straits of Malacca Dr Cantor . . . . .	311
"	[M] Sulphuret of copper, Barragunda copper mine. H Piddington . . . . .	312
"	[M] Jet coal from the Chawa Nuddee, a tributary of the Tistá H Piddington . . . . .	313
<b>XXIII</b>	[M] Copper mines of Dholbhum Mr Ricketts . . . . .	396
"	Minerals and fossils form about two miles north of Rajahmundry near the Village Kátera Wal- ter Elliott . . . . .	399
"	Peats of Bengal H Piddington . . . . .	400
"	Sub-Himalayan range, south of Darjiling, the Khasia hills and the Rajmahal hills T Oldham . . . . .	616
<b>XXIV</b>	[M] Iron ore from the Gangpur Raja's territory. Capt. Saxton . . . . .	185
"	[M] Coal fields of Talchir on the Brahminee river. E A Samuells . . . . .	248
"	[M] Gold dust and gold sands, Midnapore W D Short . . . . .	250
"	[M] Copper ore of Darjeeling Di Campbell . . . . .	251
"	Budwan Paving stone Taylor . . . . .	704
"	[M] Coal from Thayet Myo, Pegu. Capt Niblett and H Piddington, . . . . .	709
<b>XXV</b>	Meteorite from Sugaulh, near Bettia Dr. McDonell . . . . .	170
"	Hot Springs in the village of Kujoorah, nine miles from Jessore Dr Watson . . . . .	224
"	Water-fall in the Bonai province of the south-west Frontier Agency. Capt G. H Saxton . . . . .	230

XXV	Geology of Central India. T Oldham ... ..	249
„	[M] Alum stone from the Sung-Yang hills bordering on Foh Kien Dr McGowan . . . . .	366
XXVI	Meteorite stones near the village of Parnáli, Mandu- hasoh H S Taylor . . . . .	287
XXVII	Cretaceous rocks of India T Oldham and Capt. Keating .. .. .	112
„	An Earthquake, Cuttack G H Saxton . . . . .	366
XXVIII	Meteorites in the Society's collections .. ....	259
„	Central India J G Medlicott ... . . . .	303
„	Curia Muria, southern shore of Arabia Dr Buist	507
XXIX	Wazirce country T Oldham and J L Stewart ..	314
„	Aerolite at Dhurmsah H Cope . . . . .	410
XXI	Earthquake at Ballygunge and Krishnanagor Lieut Col H Bruce and Mr Masters .. .	161
„	The Indian Coal-bearing strata T Oldham .. .	177
„	Meteorite at Peprassu and Bulloach, Sarun district T F Peppé .... .	396
XXXI	Zaskar and other glaciers Captain Montgomerie	209

## II.

## ZOOLOGY.

## 1 — VERTEBRATA.

I	<i>Felis</i> of the Midnapur jungles Dr J Pearson ....	75
II	Fossil bone from Jabalpur Benson .....	151
„	Bone from a Cave in the neighbourhood of Hyderabad Dr Malcolmson .....	204
„	A fragment of a large fossil bone from Jabalpur. Dr Spilsbury .....	263
III	Fossil bones from Zenang-goung and the neighbouring hills in Ava. Major Burney .....	365
IV	Sivalik Fossils, .....	57
„	Fossils in the Sewalik range F Cautley, .....	585
„	Mammalia and birds. Dr. McCosh, .....	587
V	Fossil bones from the Cape of Good hope J Trotter	518
VI	Indian sucking fish W Ewin .....	321
VII	Two small fish from a hot spring at Puri Dr. McClelland .....	465
X	List of mammalia and birds contained in the Museum of the East India Company .....	38
„	Reports for September to November, 1841 E Blyth 836, 917,	936
XI	Reports from Jan to June, 1842 E Blyth 95, 129, 444,	585
„	Report for July, 1842, with appendices on the Asiatic Drongos and Quails E Blyth .....	788
„	Report for August, 1842 (mainly <i>Reptilia</i> ) E Blyth,	865
„	Reports for September to November, 1842 E Blyth, 880, 969,	1202
XII	Report for February, 1843 (revision of reports, with observations on Asiatic <i>Simiadae</i> ) E. Blyth ....	166
„	Report for November, 1843 with comments on collections from Darjeeling E Blyth .. ..	925
XIII	Report for May, 1844 (the Mynahs &c) E Blyth	361
XV	Report for November, 1845, .....	xcix
XVI	Reports for February to May, 1847 Blyth 209, 385, 502,	603
„	Report for June, 1847 ( <i>Quadrupedia</i> in the Society's Collection) E Blyth, . . . . .	725
„	Report for July, 1847 ( <i>Sciuridae</i> in the Society's collection) E Blyth .....	863

XVI	Report for August, 1817 (the Hornbill group) E Blyth	992
„	Report for December, 1817 (Pangolins) E Blyth..	1271
XVII	Reports for Jan to June, 1818 E Blyth.. 82, 247,	559
XVIII	Report for January, 1819 E Blyth .....	80
XIX	Reports for June to October, 1850 E Blyth 426,	
	490, 497,	561
„	Hippopotamus from Naisingpur Dr Spilsbury .	489
XX	Reports for January to August, 1851 E Blyth	
	108, 213, .	443
XXI	Reports for April and May, 1852 E Blyth .. 341,	433
XXII	Reports for May, to October E Blyth . 408, 580,	589
XXIII	Report for February, 1853 (with note on Orangutans)	
	E Blyth . ....	210
„	Report for October, 1854 (with note on the series of	
	Indian and Tibetan foxes in the Society's Museum)	
	E Blyth . ....	729
XXIV	Reports for February and March, 1855 E Blyth 178,	187
„	Report for April, 1855 (Ruppell's contributions from	
	Abyssinia and Tickell's and Frith's discoveries of	
	Adjutant's nests) E Blyth .....	252
„	Report for May, 1855 E Blyth, .....	359
„	Report for July, 1855 (with note on the smaller	
	squirrels in the Society's collection) E Blyth ..	469
„	Report for October, 1855 (Theobald's contributions	
	of reptiles and other specimens from the Tenasserim	
	Provinces) E Blyth .....	711
„	<i>Colossochelys Atlas</i> Falconer and Cautley .....	173
XXV	Report for August, 1856 (the two supposed wild types	
	of the Domestic cats of India) E Blyth . .	439
„	Fossils from Kohat From Lieut Trotter and Lieut.	
	Garnett .. ....	359
„	Fossils from the nummulitic rocks of Sind H F	
	Blanford, .....	581
XXVI	Reports for May to October, 1857 E Blyth	
	238, 284,	314
„	Report for December, 1857 (with note on the species	
	of <i>Palæornis</i> ) E Blyth . . ....	81
XXVII	Report for May, 1858 (describes Dr Liebig's contribu-	
	tions from the Andaman islands, and fishes obtained	
	in the neighbourhood of Calcutta) E Blyth ...	267
XXVIII	Reports from February to May, 1859 (Andaman col-	
	lections, and the series of flying squirrels) E Blyth	271



XXVIII	Report for September, 1859 (Tickell's contributions from Tenasserim) E Blyth .....	411
XXIX	Report for March, 1860 (Swinhoe's contributions from Amoy and Foimosa, Cape specimens from Layard, collections from the Andamans). E. Blyth .....	87
"	Reports for April and May, 1860 E Blyth .....	447
"	Report June, 1860 (collections from China, the Philippine islands, and Cape of Good Hope). E Blyth .....	490
"	Dr Bronn's work on the laws of development of organised beings H F Blanford .....	428
XXX	Report for July, 1861 (Stag and Staghoins) E Blyth	185
XXXI	Report for February, 1861 (collections from British Burma, and a note on the ascertained species of <i>Scuridæ</i> in that province). E Blyth ..	331
XXXII	Report for February, 1861, continued, (collections from Burma and Port Blau) E Blyth .....	451
XXXIII	Report for December, 1863 (Comments on Milne-Edward's Monograph of the <i>Chevrotaims</i> E Blyth)	48
"	A fossil Amphibian from the Pachmar hills. Mr. Blanford, .....	336

## 2.—INVERTEBRATA.

I	Land and fresh water shells of the Doab, and of the Gangetic provinces Benson .....	75
II	Fossil shells of the Himalayas Captain P. Gerard,	151
"	Fossil shells from Jabalpur Dr Spilsbury .....	205
"	Fossil shells discovered by Dr H H Spix .....	549
III	Fossil shells in Hyderabad. Dr Malcolmson ....	302
VI	Fossil Conchology of the Chaur range in Cutch Captain A Burnes .....	159
XIV	Fossil shells and Zoophytes of Roree, Tatta and Kurachee T C Blagrave, .....	111
XV	Shells from Danish and Swedish localities. T. Cantor .....	211
XXV	Fossils from the Nummulitic rocks of Sind. H F Blanford .....	581
XXIX	Dr Bronn's work on the laws of development of organised beings H F Blanford ..	428
XXXIII	Himalayan fossils in the Oxford Museum. Prof J. Phillips .....	577

III.

BOTANY.

XXIV	Fossils from the Rev S Hislop and the Rev R	
	Hunter .....	364
.,	Impressions of ferns From Rajmahal J. Pontet ..	365



PROCEEDINGS  
OF THE  
SPECIAL CENTENARY MEETING  
OF THE  
ASIATIC SOCIETY OF BENGAL.

---

A Special Meeting to celebrate the Hundredth Anniversary of the First Meeting of the Asiatic Society of Bengal was held in the Society's Rooms, on Tuesday, the 15th January, 1884, at 7-30 P.M.

The HON'BLE H J REYNOLDS, B A , C S , President, in the Chair

The following six gentlemen, duly proposed by the Council at the last Ordinary Meeting of the Society, were unanimously elected Special Centenary Honorary Members —

1 JAMES PRESCOT JOULE, LL D , F R S , discoverer of the laws of the evolution of heat, of the induction of magnetism by electric currents, of the mechanical equivalent of heat, and the originator of the kinetic theory of gases , presented by the Royal Society in 1850 with its medal, and in 1870 with the Copley medal, for his experimental researches on the dynamical theory of heat

2 DR ERNST HAECKEL, Professor in the University of Jena, for his morphological and embryological discoveries, and his many valuable papers on the Medusæ and other forms of sea and fresh-water animals

3 CHARLES MELDRUM, M A , F R S , F R A S , Port Louis, Mauritius, on account of his valuable researches into the meteorology of the Indian Ocean

4 A H SAYCE, Deputy Professor of Comparative Philology in the University of Oxford, on account of his distinguished services to Comparative Philology generally, and especially to the knowledge of the Assyrian, Accadian, and Hittite languages

5. E. SENART, Member of the Institute of France, on account of his distinguished services to Pali Scholarship, especially in the decipherment of the ancient inscriptions of Asoka, and in editing Pāli and Gāthā texts.

6 MONIER WILLIAMS, Boden Professor of Sanskrit in the University of Oxford and founder of the Indian Institute in the same University, on account of his distinguished services to the interests, literary and social, of India, and his valuable grammatical and lexicographic contributions to Sanskrit Philology.

The Review of the Society's History and Researches during the century of its existence, drawn up by the Secretaries and Dr Rajendralāl Mitra, was laid upon the table. A vote of thanks to the Compilers of the Review was unanimously passed \*

The following addresses from learned Societies, congratulating the Society on the celebration of its Centenary, were read. —

C F

# I.

ROYAL PRUSSIAN ACADEMY OF SCIENCES

*An die Asiatische Gesellschaft von Bengalen zum XV Januar*

*MDCCCLXXXIV*

BERLIN, 6th December, 1883

GEHRTE HERREN!

Am 15ten Januar 1784 gegründet, feiert Ihre Gesellschaft am Beginn des nächsten Jahres ihr 100jähriges Bestehen.

Als die älteste aller zur Zeit vorhandenen morgenländischen Gesellschaften, steht sie an der Spitze jener glorreichen Entwicklung der orientalischen Studien, welche wir der Kenntniss des Sanskrit verdanken.

Wenn die europäische Gesittung unter dem Schutze der britischen Herrschaft im Laufe dieses Jahrhunderts reichen Segen über Indien gebracht hat, so hat in umgekehrter Richtung während dieses Zeitraumes auch Indien seinerseits durch seine Sprache und Literatur tiefgreifende Wirkungen auf Europa ausgeübt. Es mochte wenige Gebiete der historischen und der sprachlichen Wissenschaft geben, welche von dem Einfluss der Sanskritstudien gänzlich unberührt geblieben waren. Das Sanskrit hat uns eine indogermanische Urzeit erschlossen, — eine vergleichende Sprachwissenschaft entstehen lassen, — hat das alte Perien uns aufgethan,

und die geistigen Denkmäler Zarathustra's sowohl wie die steinernen der Achaemeniden eröffnet, — hat endlich von da aus dann weiter auch die alten Culturländer, Babylon und Assyrien, aus dem Todesschlaf ihrer Keilschriften wiedererweckt und zum Reden gebracht

Von diesen in ihrer Bedeutung annoch unabsehbaren Folgen der Erschliessung des Sanskrit konnten allerdings die Männer, welche als die Pioniere dieser Studien dastehen, konnten Ihre Jones, Wilkins, Colebrooke, Wilson nur erst einen Theil bereits ahnen Ihr Streben war Indien speciell zugewendet Aber ihre Arbeiten haben dennoch weithin befruchtend und schöpferisch gewirkt

Eine grosse Vergangenheit liegt hinter Ihnen — Dass aber auch Sie, Ihrer Väter werth, die Erforschung Indiens, seiner Sprache und Literatur, als ein kostbares Erbe betrachten, das Sie immer aufs Neue zu "erwerben" suchen, "um es würdig zu besitzen," dafür legt, neben Ihrem auch den Naturwissenschaften reiche Ausbeute bietenden Journal, die Bibliotheca Indica ein vollgültiges Zeugniß ab, jene grossartige Text-Publication, welche, seit nunmehr 35 Jahren unter Ihrer Aegide erscheinend, die wichtigsten literarischen Erzeugnisse des indischen Geistes der Wissenschaft allgemein zugänglich zu machen bestimmt ist •

• Die Königlich Preussische Akademie der Wissenschaften hat in Wilhelm von Humboldt und in Franz Bopp zwei Männer zu ihren Mitgliedern gezählt, welche die hohe Bedeutung des Sanskrit in ihrem vollen Werthe erkannten und auch bei uns zu allgemeiner Anerkennung zu bringen nach Kräften bemüht waren. Bopp besonders kann, wie er als der Begründer der vergleichenden Sprachforschung dasteht, so auch geradezu als der Vater der Sanskritstudien in Deutschland betrachtet werden, die seitdem daselbst eine feste Stätte gefunden haben

Im Hinblick auf diese ihre beiden hervorragenden Mitglieder erkennt es daher die Königl. Akademie als eine besondere Ehrenpflicht, Ihnen geehrte Herren, zu dem bevorstehenden Ehrentage Ihrer Gesellschaft den Tribut dankbarer Anerkennung und Huldigung darzubringen Möge der Geist, in dem sie begründet wurde, auch in dem neuen Saeculum in ihr fortdauernd in voller Wirksamkeit bleiben !

Die Königlich Preussische Akademie der Wissenschaften.

(Sd)	E CURTIUS	(Sd)	WEBER.
,,	E DU BOIS-REYMOND	,,	ZELLER
,	TH MOUVEN	,,	WATTENBACH.
,	A AUWERS	,	LANDOLT
,,	DIELS	,,	EICHLER

(Sd.)	SCHRADER.	(Sd)	V HELMHOLTZ.
„	WEBER	„	SIMMENS.
„	F KIRCHHOFF	„	TOBLER.
„	EWALD	„	A KIRCHHOFF.
„	SCHWENDENFR	„	RUD VIRCHOW.
„	BEYRICH	„	LEPSIUS
„	A W. HOFMANN.	„	KIEPERT.
„	ROTH	„	G WAITZ
„	KRONECKER	„	SYBEL
„	HERM MUNK	„	DILLMANN.
„	TRINGSHEIM		

## II

FROM THE GERMAN ORIENTAL SOCIETY, HALLE

Der Asiatischen Gesellschaft von Bengalen, welche während der hundert Jahre ihres Bestehens die ihr von ihrem grossen Begründer Sir William Jones gestellte Aufgabe, die Geschichte, die Künste und Wissenschaften, und die Literatur Asiens zu erforschen, glanzend erfüllt und dadurch den Dank aller orientalischen Philologen sich verdient hat, der ältesten Asiatischen Gesellschaft widmet die aufrichtigsten Glückwünsche zu ihrem Jubiläum am XV. Januar MDCCCLXXXIV die Deutsche Morgenlandische Gesellschaft

Der geschäftsführende Vorstand

(Sd)	DR CHR BARTHOLOMAE	(Sd)	DR JULIUS WELLHAUSEN.
„	DR LUDOLF KREHL IN LEIPZIG	„	DR ERNST WINDISCH IN LEIPZIG HALLE A. S.

## III

ROYAL ASIATIC SOCIETY,

22, ALBEMARLE STREET, LONDON, W.,

December 20, 1883.

SIR,

The Council of the Royal Asiatic Society having heard that their Parent Society, the Asiatic Society of Bengal, are about to celebrate, on

the 15th January, 1884, the Centenary of their Foundation, desire to offer to the Council and Members of the Society their heartiest congratulations on this auspicious occasion

I have the honour to be,

Sir,

Yours very faithfully,

(Signed) H B E FRERE, *President, R A S*  
, W S W VAUX, *Secretary, R A S*

TO THE SECRETARY OF THE BENGAL ASIATIC SOCIETY

---

IV

ROYAL INSTITUTE FOR THE PHILOLOGY, GEOGRAPHY,  
AND ETHNOLOGY OF NETHERLANDS INDIA  
THE HAGUE (HOLLAND),

18th December, 1883

GENTLEMEN,

On the 15th of January, 1884, the Asiatic Society of Bengal will have to commemorate a glorious past. The century so splendidly inaugurated by the researches of Sir William Jones and Henry Thomas Colebrooke, and so remarkable by the discoveries and labours of John Prinsep, Horace Hayman Wilson, Brian Haughton Hodgson and so many other illustrious names, has been fruitful in results more striking and marvellous than the fairy tales of the East. By steadily promoting and encouraging scientific research in every direction, your Society has earned the thanks of scholars in general, and especially of those who have devoted themselves to Oriental studies.

As representatives of a Society which for many years has stood in friendly relations with yours, we beg to offer our sincere congratulations for the memorable day of 15th January. We rejoice at the flourishing condition and unabated vigour of the centenary, and we hope that the future may be as bright and glorious as the past.

(Signed) H KERN,

*President of the Royal Institute  
for the Philology, Geography, and  
Ethnology of Netherlands India*

P C L WIJNMALLN,

*Secretary*



DIRECTOR DES KÖNIGL. ZOOLOGISCHEN UND DES ANTHROPOLOGISCH-  
ETHNOGRAPHISCHEN MUSEUMS ZU DRESDEN

*The 20th December, 1883*

To

THE ASIATIC SOCIETY OF BENGAL,

CALCUTTA

The Society's Centenary induces me to give expression to the most cordial and sincere wishes from the part of the Royal Museum of Dresden and to the hope that the Society may flourish in all future as hitherto, and may increase in influence and importance to science

The Director of the Royal Zoological, Anthropological and Ethnographical Museum,

(Signed) A. B. MEYER, M D

The occasion was further celebrated by a dinner immediately after the meeting, at which the following were present —

GUESTS

H E the Marquess of Ripon, K.G., P.C., G.M.S.I., G.M.I.E., Viceroy and Governor-General of India

H W Pimrose, Esq., Private Secretary to H E the Viceroy

Capt E H Clough-Taylor, Aide-de-Camp to H E the Viceroy.

His Grace Archbishop Goethals

The Hon'ble Lieut.-General T. F. Wilson, C.B., C.I.E.

The Hon'ble Sir Stuart Bayley, K.C.S.I., C.I.E.

The Hon'ble C P Ilbert, C.I.E.

The Hon'ble W W Hunter, LL.D., C.I.E.

Prof Monier Williams, C.I.E., D.C.L.

MEMBERS

The Hon'ble H J Reynolds, B.A., C.S., *President, in the Chair*

The Hon'ble J Gibbs, C.S.I., C.I.E., F.R.G.S., M.R.A.S., *Vice-President*

H B Medlicott, Esq., M.A., F.R.S., F.G.S., Dr D Waldie, F.R.S., J Westland, Esq., C.S., Nawab Abdul Latif Khan Bahadur, C.I.E., Major J Waterhouse,

\* This address was received subsequently to the meeting, and was read at the Ordinary Monthly Meeting of the Society in February

n s c , Alex Pedler, Esq, i c s , A W Croft, Esq M A , *Members of Council*. Dr A F R Hoernle, *Philological Secretary* L de Nicéville, Esq, *Offg Natural History Secretary* F W Peterson, Esq, i c s , *Honorary Treasurer* Dr H W McCann, *General Secretary* Sayyid Amir Ali M A , Barrister-at-Law, Dr J Anderson, F R S , F L S , E F T Atkinson, Esq, B A , c s , Nawab Sayyid Ashgar Ali Diler Jang, Khan Bahadur, c s i , Dr R A Barker, Rev K M Bannerjee, LL D , Dr A Barclay R R Bayne, Esq, M B I B A , the Hon'ble H Beverley, M A c s J F Browne, Esq, c s , M B A S , Surgeon-Major H Cayley, Dr Aghorenath Chatterjee, J Cockburn, Esq, J C Douglas, Esq, J Elliot, Esq, M A , F Fedden, Esq, Prince Mahomed Fnuakh Shah, Monmohun Ghose, Esq, Raja Satyananda Ghoshal, G A Grierson, Esq, B A , c s , Behanlal Gupta, Esq, c s , J Hart, Esq. Surgeon-Major C J J Jackson, Moulvie Kabiruddin Ahmed, Khan Bahadur, P Kennedy, Esq, M A , Dr G King, F L S , Rev Father Lafont, O F M , Major-General G B Manwaring, s c , Babu Jadnial Mullick, the Hon'ble A B Miller, J R Napier, Esq, A M Nash, Esq, M A , J C Parker, Esq, T F Peplé, Esq, Col W F Prideaux, n s c , Bibu Bipin Chunder Rai, B L , Dr W Schlich, Dr Mohendralal Sirkar Lieut-Col Sir O B St John, F R S , c s i , J Schaumburg, Esq, Lieut-Col A C Toker, n s c , R Turnbull, Esq, Prince Jahar, Qadr Muhammad Wahid Ali Bahadur, Dr G Watt, W T Webb, Esq M A

After dinner, the following toasts were proposed and speeches delivered —

The PRESIDENT said —The first toast on our list, as the first in our hearts, is one which needs no words of recommendation from me. Wherever her subjects, whether English or native, are gathered together, the health of the Queen-Empress is received with an acclamation in which we combine the tribute due to every excellence which can adorn womanhood with the homage which we gladly pay to the virtues of the Sovereign. But it seems to me that the occasion on which we are assembled to-night is one to which this toast is specially appropriate. The founder of our Society declared that its enquiries should extend, within the limits of Asia, to whatever is performed by man, or produced by nature. Nothing within those limits is more wonderful or stupendous than the mighty Empire which has been built up by the succession of statesmen and warriors whom England has sent forth to establish in India the blessing of peace, the supremacy of law, and the development of material wealth. The pole-star of that Empire is the gracious Lady whom we trust Providence

may long preserve to rule over us, and whose name we welcome with no mere conventional loyalty of the lips, but with the devotion of our hearts and the service of our lives. The toast I give you is the health of the Queen-Empress.

The PRESIDENT then proposed the next toast as follows.—Gentlemen, the next toast I have to propose is the health of Her Majesty's representative in this land, the Viceroy and Governor-General. In the name of the Society, I beg to thank His Excellency for honouring our Centenary celebration with his presence to-night. The Asiatic Society has owed much to the encouragement and fostering care of the rulers of India. Though we are proud to claim Sir William Jones as our founder, it would ill-become us to forget that his efforts for the establishment of our Society were supported, and eventually rendered successful, by the assistance which he received from the first Governor-General of India. Since the days of Warren Hastings, successive Governors-General have extended to the Society the same favour as he showed to it. Some of them, among whom I may name Sir John Shore and the Marquis of Hastings, have filled the presidential chair, and all of them have accepted the office of patron of the Society. This patronage of the Society by the head of the Government has been, I believe, creditable and beneficial to both the parties concerned in it, and in our present Patron we are glad to welcome a nobleman who has not only won distinction as a statesman and a ruler, but who is honourably known by the interest he has taken in education, both in England and in this country.

HIS EXCELLENCY the VICEROY said.—Mr President and Gentlemen, I thank you sincerely for the toast which you have just drunk. I thank you, Mr President, for the terms in which you have proposed, and you, gentlemen, for the reception which you have accorded to it. I can assure you that it is a great pleasure to me to be present here this evening, and thus to mark the strong interest which I feel in the prosperity of this Society. The occasion which has brought us together to-night is one which must command the sympathy of all who care for Oriental literature and learning, for we are assembled here to-day to celebrate the Centenary of a Society which has for its special object the promotion of the study of Asiatic languages, literature, history and science. England may be called the home of societies. They spring up there of every kind and for every conceivable purpose. Some of them are extremely ephemeral, and are born to-day to die to-morrow, and but few of them can count a hundred years of life. The fact, therefore, that the Asiatic Society of Bengal has now completed a full hundred years of existence is a proof



Eastern learning which has of late been given to it by learned men of all countries, this Society has received no check, and continues to preserve the respect of all who are acquainted with its labours. And now, gentlemen, I am about, I fear, to commit what may be considered an unpardonable sin in an after-dinner speaker, but I trust to you to forgive me if I yield to the strong temptation which prompts me to read to you an extract from the words of one whose memory must be foremost in our recollections to-night. There is no name that could come before us on this occasion with the same force of reality as that of Sir William Jones. I was much struck last year in reading the interesting lectures of Professor Max Müller, which were published under the title of "*India and what she has to teach us*," by an account which I found there, given by Sir William Jones himself, of the feelings with which he first landed in this country. I will read you the words, because they are far more eloquent and heart-stirring than any that I could myself command, and because it is well that we should to-night have brought before us the actual thoughts of him whose memory we are met to honour, for, though we are primarily assembled here to celebrate the Centenary of the Society which he has founded, we are here also to mark our veneration of his character and our gratitude for his services. This is what he said of himself when he approached the shores of India when he first came out to this country — "When I was at sea last August" (that is in August 1783) "on my voyage to this country (*India*), which I had long and ardently desired to visit, I found one evening, on inspecting the observations of the day, that *India* lay before us, *Persia* on our left, whilst a breeze from *Arabia* blew nearly on our stern. A situation so pleasing in itself, and to me so new, could not fail to awaken a train of reflections in a mind which had early been accustomed to contemplate with delight the eventful histories and agreeable fictions of this Eastern World. It gave me inexpressible pleasure to find myself in the midst of so noble an amphitheatre, almost encircled by the vast regions of Asia, which has ever been esteemed the nurse of sciences, the inventress of delightful and useful arts, the scene of glorious actions, fertile in the productions of human genius, and infinitely diversified in the forms of religion and government, in the laws, manners, customs, and languages, as well as in the features and complexions of men. I could not help remarking how important and extensive a field was yet unexplored, and how many solid advantages unimproved." It seems to me, gentlemen, that in these glowing words we have the germ of this Society, for within a few months after they had sprung up in the mind of your distinguished

The Asiatic Society of Bengal enters to-night upon the second century of its career, its inaugural meeting having been held on the 15th January, 1781. It was founded in the last year of the rule of Warren Hastings, a time which historians are pleased to describe as a period of comparative tranquillity. The tranquillity may have been comparative, but it was assuredly neither positive nor superlative. In the south we were at war, or had very lately been at war, with Tippoo in Benares, Chyot Singh had just before been deposed. In the west, the Marhatta power was growing into a formidable rival. The rejection of

1

Fox's India Bill, only a few weeks previously, had hurled the Coalition Ministry from power. It was then that thirty gentlemen, conspicuous among whom were Sir William Jones, Mr Justice Hyde, Sir John Shore, John Harington, Sir G Barlow, Sir Robert Chambers, Jonathan Duncan, and Sir Charles Wilkins, formed themselves into a Society for the purpose of enquiring into the civil and natural history, the antiquities, arts, sciences, and literature of Asia. They obtained the patronage of the Government, and Warren Hastings was invited to become their President. He declined the honour in favour of Sir William Jones, who filled the chair for ten years till his death in 1794. Then were laid the foundations of that magnificent series of essays and dissertations which are the true glory of our Society, and which, embodied first in the twenty volumes of the Asiatic Researches, and afterwards in the Society's Journal, have thrown a flood of light on the literature, antiquities, and natural history of the East. The torch of knowledge was handed on from one distinguished Orientalist to another. *Uno avulso non deficit alter Aeneas*. After Sir William Jones came Colebrooke, Carey, Harington, Horace Hayman Wilson, Bryan Hodgson, James and Henry Prinsep, Henry Torrens, and many others whom time would fail me to enumerate—a galaxy of illustrious names, whose labours more than realized the highest expectations which the founder of the Society had formed. The dignitaries of the English Church showed their sympathy with an institution which is identified with the great continent from which all the religions of the world have sprung. I believe all the Bishops of Calcutta have been members of the Society. Bishop Middleton was our Vice-President in 1816, Reginald Heber in 1824, Daniel Wilson in 1850. The military profession has given us many of our most distinguished members, such as Francis Wilford, Sir Proby Cautley, and Sir Henry Durand, while to the profession of the law we owe our very existence. The service to which I have the honour to belong has taken its full share in the labours and the triumphs of the Society.

It is worthy of notice that, for many years after the establishment of the Society, no natives were enrolled in its ranks. This was assuredly from no narrow or exclusive spirit on the part of its Founder. I find among the rules laid down by Sir William Jones one which declares that "no qualification shall be necessary for membership beyond a love of knowledge and zeal for the promotion of it." But, from whatever cause it may have happened, no natives seem to have joined the Society for nearly fifty years after its foundation. It is said that some natives were proposed for election in 1818, but the list of 1832 is the earliest in which

I have observed the entry of natives, and in that list I find the honoured name of Dwarka Nath Tigore. It is probably something more than a coincidence, that, in the year in which native members first joined the Asiatic Society, the patron of the Society was Lord William Bentinck.

Into the history of the Society, during the hundred years of its existence, I need not here enter in detail. A Centenary Review has been drawn up for this occasion by some of the Society's officers, and the first part of that Review, for which we are indebted to the careful research and practised pen of Dr. Rājendralāla Mitra, gives an excellent summary of the labours, the vicissitudes, and the progress of the Society. We have passed through some periods of trouble and difficulty. On one occasion our whole collection of coins was stolen, and we have twice been sufferers by the failure of our bankers. But, on the whole, the record of the century is a record of development and success. The house in which we are assembled to-night was built for us in 1808, the Museum was formed in 1811. Some of the finest manuscripts in our library were once the property of Tippon Sultan, and were received in 1808 from the Seringapatam Prize Committee; others were made over to the Society on the abolition of the old College of Fort William. Among the claims which the Society has on the gratitude of the public, may be mentioned its supervision of the publication of the series of Oriental works issued under the title of the *Bibliotheca Indica*, its labours for the conservation of Sanskrit manuscripts, and last, but assuredly not least, the fact that it was largely due to the Society's exertions that the Government consented to establish the Indian Museum, to which the Society's collections in the departments of archaeology, natural history, and geology were removed a few years ago.

The Society has now lived and laboured for a hundred years, and I have sometimes heard it said that if it has not left its first love, it has in some measure ceased to do its first works. I have known critics point to the illustrious names which adorned its earlier annals, and ask where their successors are to be found at the present day. If there is any ground for this complaint—and when I look at the learning and genius displayed in the volumes of the *Asiatic Researches*, I am sometimes tempted to doubt whether these critics have not reason on their side—I believe the causes are not very far to seek. It must be remembered in the first place that, when our Society was founded, the treasures of Indian literature and science were almost unknown to European students. The early members of the Asiatic Society were sustained and stimulated by



the excitement of discovery, and by the interest which attaches to the exploration of new and untrodden fields of knowledge. In the second place, the pressure of business, both official and mercantile, is far heavier now than it was then. When Horace Hayman Wilson was leaving India, just half a century ago, the Society presented him with a valedictory address, in his reply to which he said that his labours on behalf of the Society had made many hours of leisure in this country glide happily away. The gliding away, whether happily or otherwise, of many hours of leisure, is a sensation to which we in these days are entire strangers, and if Wilson had left India in 1883 instead of in 1833, he would hardly have found time to elaborate the learned contributions with which he enriched the records of the Society. But another reason remains, which is, perhaps, the strongest of all. In the early part of this century, the author of a paper on any Oriental subject generally gave his thoughts to the world through the medium of the Asiatic Society of Bengal. The Society was not only the recognized channel of such communications, but hardly any other channel existed. At present there are numerous societies, numerous magazines and periodicals, through which an audience can be addressed on Oriental questions. If the stream of knowledge may seem to be less deep, it is only because it is more widely diffused, if the treasure appears to be less splendid and massive, it is because it is distributed among a larger number. We take a pardonable pride in the recollection that our Society is the parent institution, from which other Asiatic Societies, both in India and elsewhere, have sprung. The Royal Asiatic Society of London came into existence in 1823, and its first Director was that very Henry Colebrooke who had been President of our Society for nine years, from 1806 to 1815. The Bombay Society was established in 1827, that of Ceylon in 1845. The effect of our Society's labours has been felt far beyond the limits of the British Empire and of the English tongue. We were the pioneers in that field of research in which the scholars of France and Germany have since won such splendid triumphs, and across the Atlantic the stimulus of our investigations has quickened into sympathetic activity the intelligence and industry of the Oriental Societies of the United States.

If, therefore, there were any grounds for saying that the Asiatic Society of the present day is less useful and less energetic than of yore, these considerations would, I think, be sufficient to account for the change. But I am not willing to admit that such an imputation is in any way deserved. On this point I might refer to the addresses which we have received, on the occasion of this Centenary celebration, from the Asiatic

Societies of London, the Hague, Berlin, and Halle. The wording of these addresses will show that, in the opinion of those institutions, the Bengal Society has not ceased to maintain the reputation it formerly enjoyed. It would be presumptuous in me to attempt to balance claims which I can so imperfectly appreciate, and it would not be altogether seemly that I should speak of the merits and achievements of living members of the Society. But those whom I address will know to whom I refer when I say that our present roll of members includes the names of men whose researches in literature, in archæology, in natural history, and in physical science, will bear comparison with those of the giants of a former day. When the next anniversary of this kind comes round, and the Society completes its second century, there are members of the Society now living to whom the men of that age will refer with something of the veneration with which we now pronounce the names of Henry Colebrooke and Horace Hayman Wilson.

I will not venture to look forward to a still more distant future. I will not presume to say that when that artistic personage, the New Zealand traveller, after completing his sketch of the ruins of St Paul's, takes his ticket, by balloon or submarine railway, for India, he will find the Asiatic Society of Bengal still flourishing in undiminished vigour and activity. But I believe that the Society has still before it a long career of usefulness, and that, even if it could be extinguished to-morrow, it would leave behind it much which the world would not willingly let die. It would leave behind it something more precious than its collection of coins and manuscripts, or even than the records in which its history is enshrined. It would leave an example and a remembrance of patient research and self-denying labour, undertaken not from any motive of greed or any desire of glory, but with the single aim of advancing the interests of science, and extending the boundaries of human knowledge. And now, before I sit down, I will ask all present to join me in a toast which ought not to be omitted on such an occasion as this. I give you "The Honoured Memory of our Founder, Sir William Jones."

The HON'BLE MR GIBBS proposed the last toast as follows — Mr President, Your Excellency, and Gentlemen,—The next toast has been entrusted to my charge. It is one which it is always a pleasure to the hosts to propose and the company to honour, being that of "Our Guests." In the Society which celebrates its hundredth birthday this evening, it has been the practice hitherto to treat its guests with "the feast of reason and the flow of soul," but for its indulging in the more substantial feast of this evening, though we have necessarily no precedent,

we feel we need none, as the exceptional circumstances of the occasion justify an exceptional entertainment

When the Society, therefore, determined that its members should meet and celebrate this auspicious event in the truly English manner we have done, it could not forget that a Society which was formed to enquire, among other subjects, into the literature of Asia, and which by its publications has enabled the Oriental scholars of Europe to acquire the knowledge which was buried in many valuable MSS., was bound to remember the admonitions to be found therein as regards guests and then duty to them. In the well-known Sanscrit law-book, the *Vishnu Smṛiti*, it is thus laid down — Before such a learned assembly as the present, it might be expected that I should give the extract in the original, but, being under the immediate eye of my excellent friend and former preceptor in Sanscrit, I prefer to follow the example lately set by a high official at Oxford and, “to prevent mistakes,” give it in English —

“By honouring guests a householder obtains the highest reward. Let him assiduously honour guests who arrive in the evening. Let him not suffer guests to stay at his house unfed.”

With this appeal to our duty sweetened by the promise of reward, we invited our guests, and we trust the concluding portion of the programme has been carried out to their satisfaction. Among those who have honoured us with their presence this evening, we have representatives of the clerical, military, civil, legal, literary, and educational professions. In the Archbishop of Western Bengal we have a distinguished representative of a religious society, which has laid the people of this city, as well as that of Bombay and other towns, under a deep debt of gratitude for the excellent educational institutions it has established, whose schools and colleges are patterns to all others both in management and results. In my honourable colleague, General Wilson, the army is well represented by one who, having filled with credit the most important offices of his rank, is now the adviser of His Excellency in Council in all matters relating to that army the welfare of which he has warmly at heart. The Civil Service is ably represented by my honourable colleague, Sir Stewart Bayley, whose large administrative experience, added to his intimate knowledge of Bengal, its tenures and its people, make him a most valuable adviser. My learned friend and honourable colleague, Mr Ilbert, by his highly distinguished academical career, and his great knowledge of the science and practice of law, fitly represents the legal profession, while literature has the good fortune to find itself represented by Dr Hunter, whose facile pen has done so much to remove the ignorance which prevailed at

